

P U B L I C   H E A R I N G

before

SENATE ENERGY AND ENVIRONMENT COMMITTEE

on

SENATE NO. 1407

(The State Energy Facilities Agency Act)

SENATE NO. 1494

(The Nuclear Reassessment Act)

SENATE NO. 1721

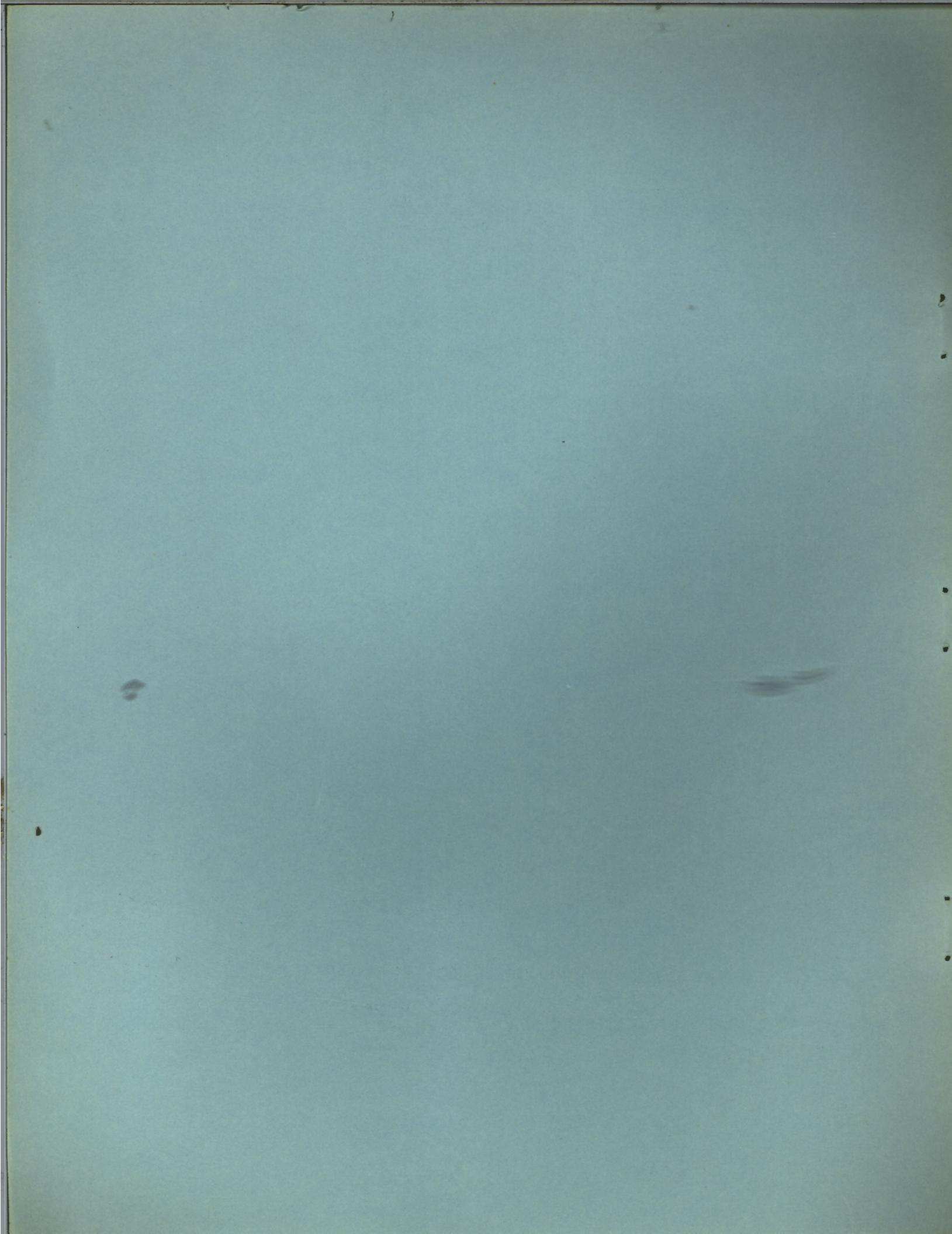
(An Act to Control the Siting of Nuclear Power Plants)

VOLUME I

Held:  
April 5, 1977  
City Hall  
Atlantic City  
New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator John F. Russo (Chairman)  
Senator Joseph L. McGahn  
Senator Frank J. Dodd



1 STATE OF NEW JERSEY  
2 LEGISLATIVE SERVICES AGENCY  
3 DIVISION OF LEGISLATIVE  
4 INFORMATION AND RESEARCH

5 - - - - - :  
6 PUBLIC HEARING ON NUCLEAR :  
7 POWER and ENERGY FACILITY : TRANSCRIPT  
8 SITING (51407, 51494 and 51721) : OF  
9 - - - - - : PROCEEDINGS

10 TUESDAY, APRIL 5, 1977

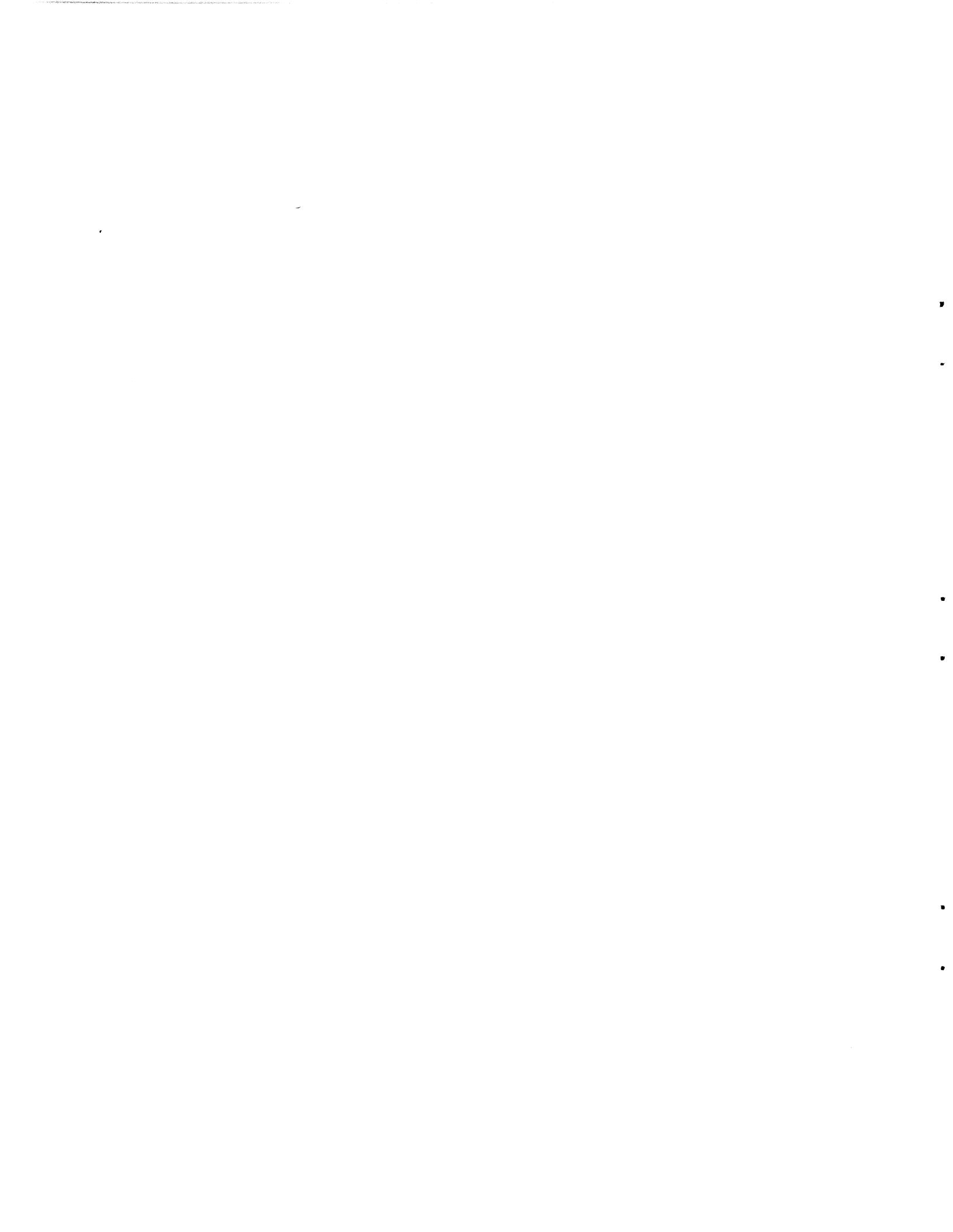
11 B E F O R E :

12 HONORABLE JOHN F. RUSSO, HONORABLE JOSEPH L.  
13 McGAHHN, and HONORABLE FRANK J. DODD, Senate Energy  
14 and Environment Committee, on the above date, at  
15 City Hall, Atlantic City, New Jersey, commencing at  
16 10:00 A.M., pursuant to Notice.

17 A L S O P R E S E N T:  
18 J. MARK REIFER, Legislative Services  
19 DAVID C. MATTEK, Legislative Services

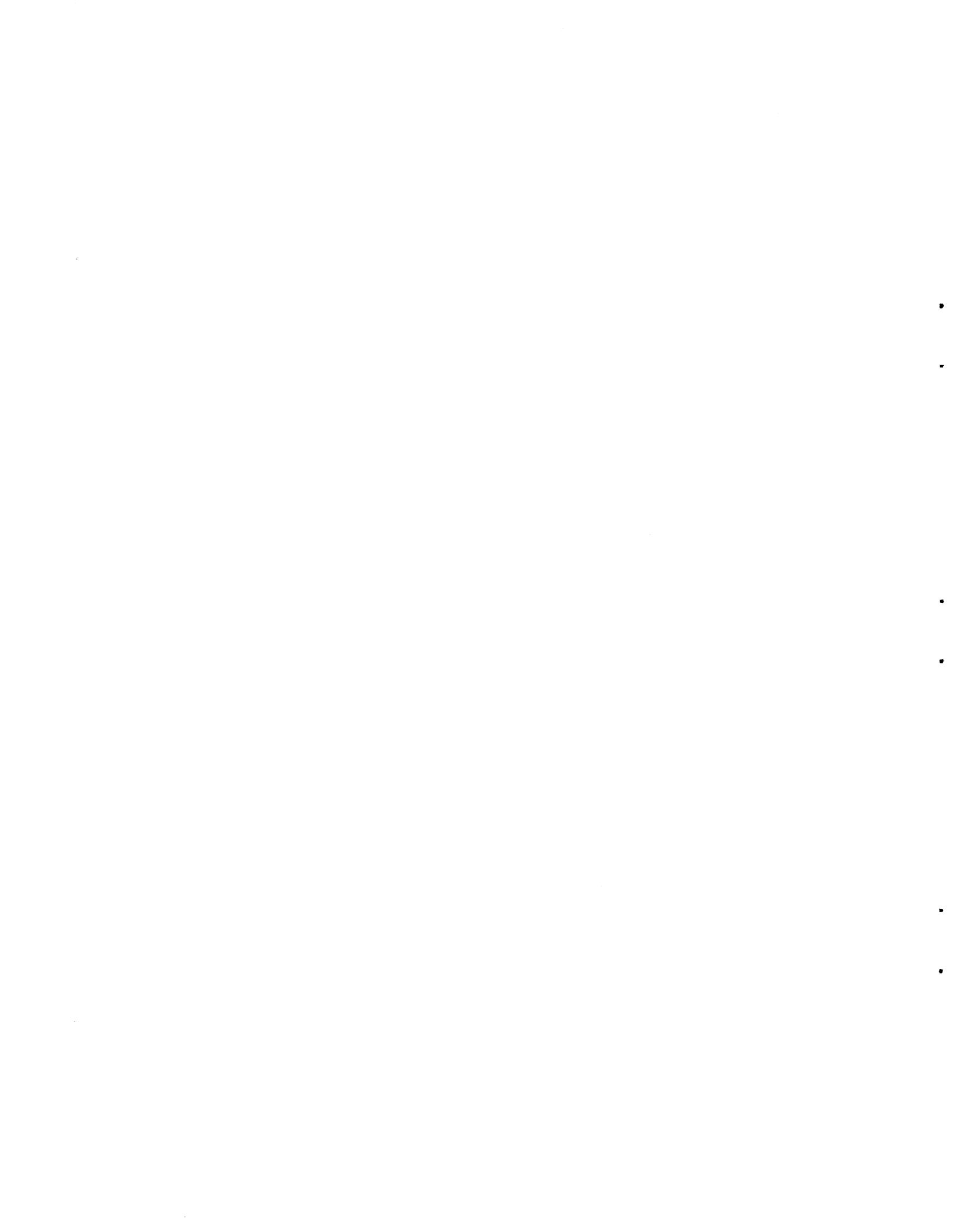
20 Reporting Services Arranged through:  
21

22 SILVER & RENZI REPORTING SERVICES  
23 BY: ALAN L. LESKY, C.S.R. and  
24 CLAUDIA L. LESKY, C.S.R.



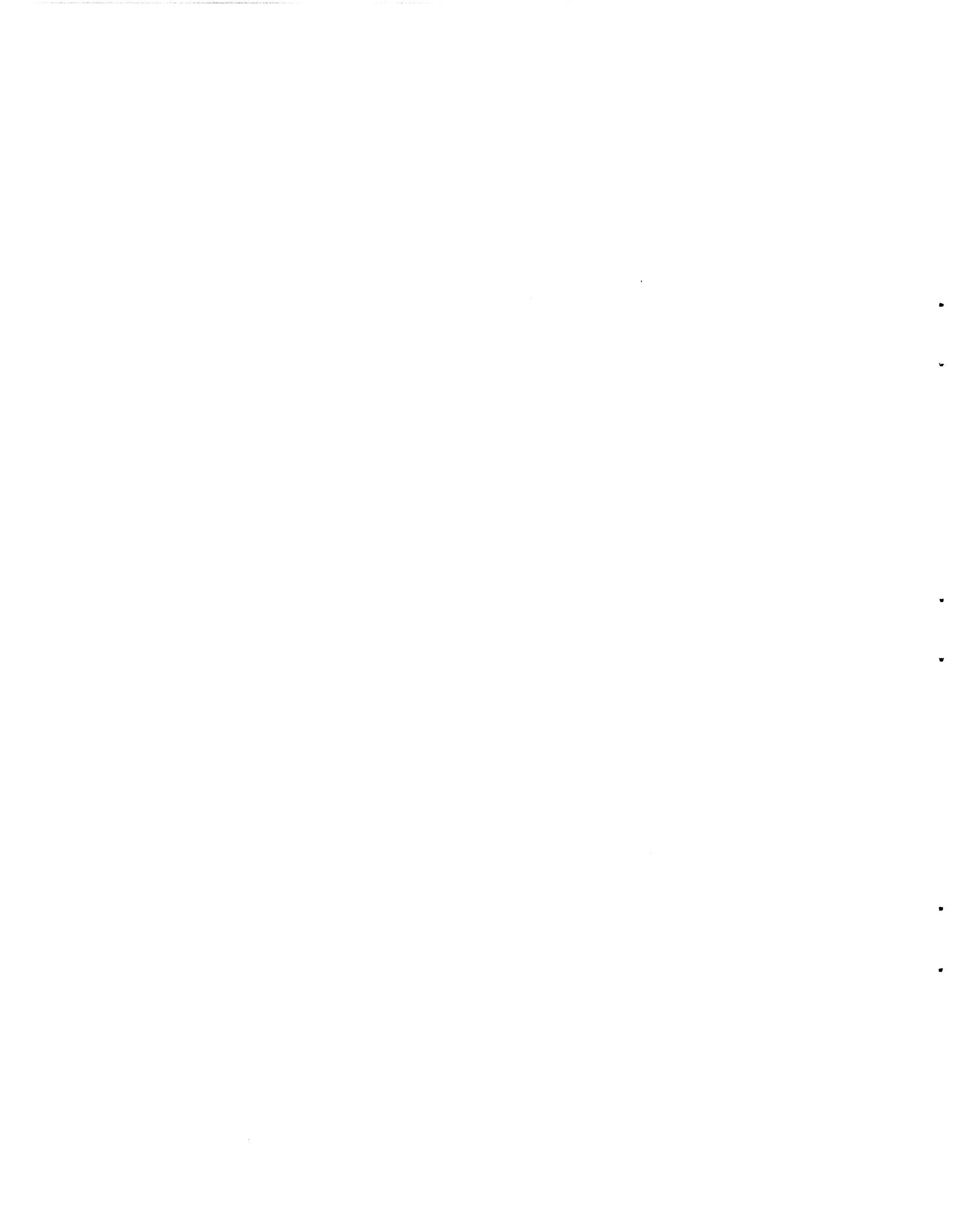
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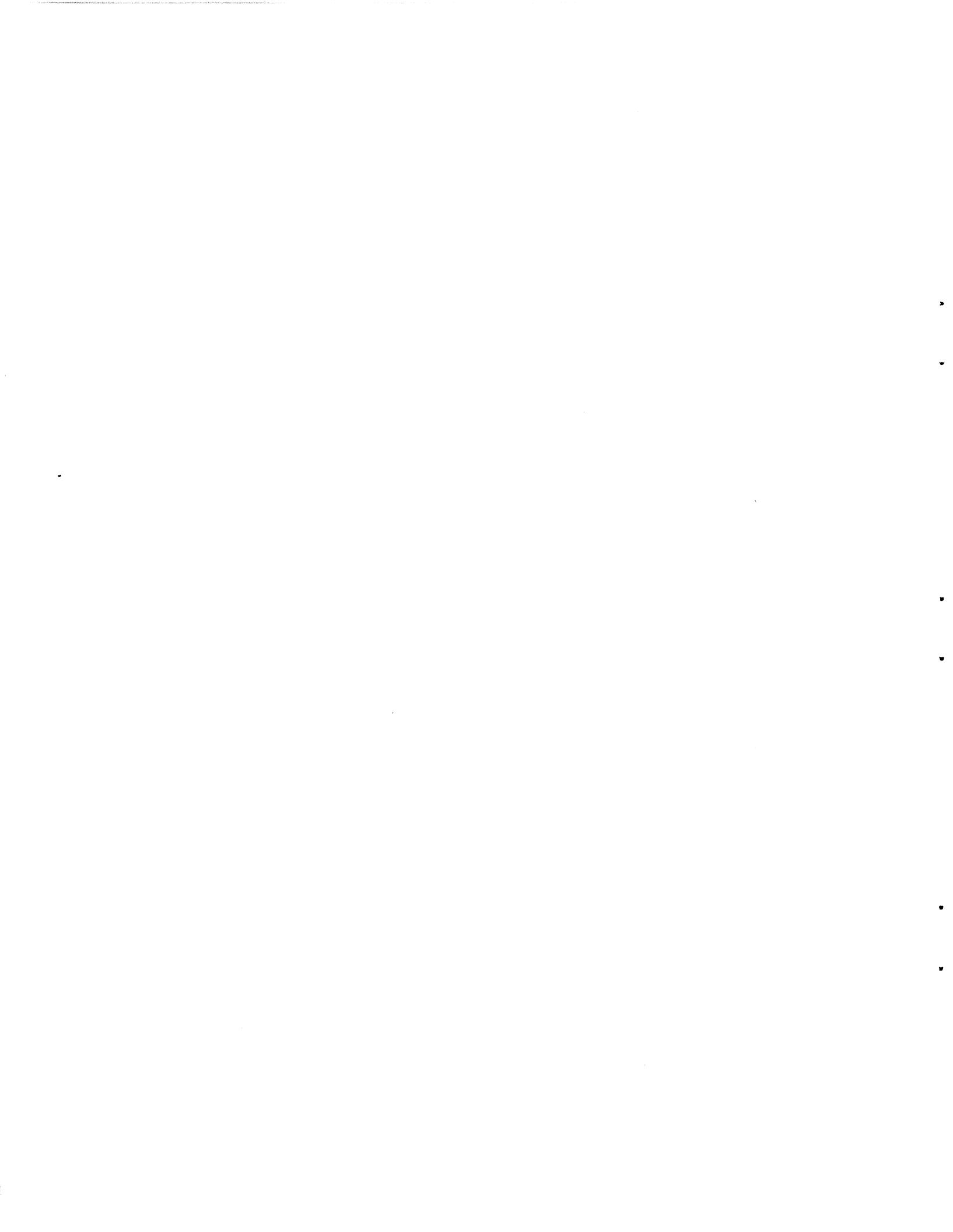


1                   SENATOR McGAHN: Good morning, ladies  
2 and gentlemen. The Public Hearing will come  
3 to attention. I'm Senator Joseph McGahn  
4 chairing this meeting in the absence of  
5 Senator John Russo, who is on his way down  
6 here and will join us later.

7                   Let me introduce the gentlemen seated  
8 up here and to our extreme right, Mark Reifer,  
9 Legislative Services. To my right, Senator  
10 Pat Dodd, and to my left, Dave Mattek, also  
11 Legislative Services.

12                  Let me thank you people for attending  
13 this morning with the beautiful weather that  
14 we have outside. Unfortunately we really did  
15 not order this type of weather, and this is  
16 not the type of weather we intend to have in  
17 Atlantic City once casino gambling becomes  
18 reality.

19                  Let me also, should I say, acknowledge  
20 the presence of Nicholas Introcaso, who is  
21 the Administrative Secretary to Mayor  
22 Joseph Lazarow who is sitting in here today,  
23 and we certainly convey our respects and  
24 grateful appreciation to Mayor Lazarow for  
25 making the Commission chambers available to



1                   us this morning.

2                   We are, of course, hearing three bills  
3                   this morning, Senate bill 1407, Senate bill  
4                   1494 and Senate bill 1721, which are the  
5                   subjects of this Public Hearing. We have  
6                   approximately fifty-five individuals testifying  
7                   on the agenda. So under the circumstances I  
8                   think it's going to be necessary to actually  
9                   limit the amount of time that each speaker  
10                  has. We would request that if you do have a  
11                  prepared statement that statement be given  
12                  to a member of the Legislative staff and  
13                  certainly attempt to the best of your ability  
14                  to summarize the contents of that. We would  
15                  ask also that you stick strictly to the  
16                  contents of the three bills. We would ask  
17                  also that no reduplication of issues be  
18                  stated. Frankly, if you find yourself not  
19                  agreeing with one particular thing, we would  
20                  ask that you simply do that and not repeat  
21                  testimony that we have heard prior to that  
22                  time.

23                  Let me say here that personally, I  
24                  will get started. We will be joined, as I  
25                  said, by Senator Russo. I am the sponsor of

1           two of the bills and Senator Dodd is sponsor  
2           of the additional bill. So as such, as  
3           sponsors, I will, of course, basically start  
4           off.

5           I am very pleased at the response to  
6           this public hearing, especially since the  
7           bills under consideration today constitute  
8           the first -- perhaps most vital -- step in  
9           establishing a State energy policy. The need  
10          for such a policy was dramatized, but by no  
11          means created, by the now almost forgotten  
12          gasoline crisis of 1974 and this winter's  
13          natural gas crisis. And there is already  
14          talk of a home heating oil shortage in the  
15          near future -- perhaps as early as next  
16          winter. We must, then, get on with the busi-  
17          ness of gaining control over our energy  
18          situation. Our failure to develop a responsi-  
19          ble energy policy will weaken our economy,  
20          endanger our environment, and threaten the  
21          health, safety, and welfare of our citizens.  
22          Moreover, the policy that we do develop, if  
23          it is to be effective, will require public  
24          input and public support. That is why we  
25          are all here today.

1                   The two bills on the agenda of which  
2                   I am the prime sponsor -- Senate Bills 1494,  
3                   the "Nuclear Reassessment Act," and 1721,  
4                   supplementing the "State Energy Facility  
5                   Agency Act" -- both rest on two fundamental  
6                   premises. First, given the rapidly escalating  
7                   costs and diminishing supplies of fossil fuels  
8                   and the unlikelihood that other alternate  
9                   sources of power will be capable of meeting  
10                  projected energy demands for the remainder  
11                  of this century, nuclear power is going to  
12                  have to be given serious consideration in our  
13                  energy program. The second premise is that,  
14                  because of the hazards inherent in nuclear  
15                  power generation, the siting and licensing of  
16                  new nuclear generating plants deemed necessary  
17                  will have to be carried out in as prudent, as  
18                  cautious, as responsible a manner as possible.  
19                  They differ, however, in just how the safety  
20                  and reliability of nuclear power generation  
21                  is to be assured.

22                  Senate Bill Number 1494, the "Nuclear  
23                  Reassessment Act," imposes a four-year  
24                  moratorium on the construction of nuclear  
25                  fission power plants, which moratorium is to

1           be lifted after four years only if certain  
2           conditions set forth in the bill are met.  
3           These conditions are 1) that nuclear power  
4           generation is proved to be the best means of  
5           meeting future energy demand; 2) that safety  
6           systems built into other facilities are of  
7           demonstrated effectiveness; 3) that waste  
8           products from such facilities can be safely  
9           transported, stored, and disposed of; 4) that  
10          compensation for personal injury, property  
11          damage, and other economic losses resulting  
12          from an accident can be guaranteed; and 5) that  
13          evacuation plans in the event of an accident  
14          or threatened accident are sufficient to  
15          protect life and public order. The determina-  
16          tions that these conditions have been met are  
17          to be made by the Legislature after a review  
18          process by an advisory group of experts and  
19          concerned citizens in accordance with certain  
20          prescribed standards and procedures.

21           Senate Bill Number 1721, on the other  
22          hand, does not mandate any arbitrary moratorium  
23          period. Rather it simply provides that certain  
24          stringent conditions must be met before any  
25          nuclear power generating plant is designated

1 as a permitted land use in this State or is  
2 issued the required certificates of site and  
3 facility. As in Senate Bill 1494, the final  
4 determinations that the conditions have been  
5 met are to be made by the Legislature. Those  
6 determinations will be made, however, only  
7 after various studies have been undertaken  
8 concerning the 1) technology of nuclear fuel  
9 rod reprocessing plants; 2) the necessity,  
10 effectiveness and economic feasibility of  
11 undergrounding and berm containment of nuclear  
12 reactors; and 3) the disposal of high-level  
13 nuclear waste. I shall, of course, defer to  
14 my colleague, Senator Dodd, for a complete  
15 discussion of Senate Bill 1407, the "State  
16 Energy Facility Agency Act," but I should  
17 point out here that the required studies are  
18 to be conducted by the State Energy Facility  
19 Agency created in that bill. With respect to  
20 the technologies for nuclear fuel rod reprocessing  
21 plants and for the disposal of wastes, the  
22 prior approval of the NRC is required. With  
23 respect to the containment of nuclear reactors  
24 a one-year lapse is required before certifi-  
25 cation so as to provide the Legislature with

1 sufficient time to evaluate the study.

2 S 1721, then, recognizes, and responds  
3 to, the very real justifiable concerns of those  
4 apprehensive about the continued implementation  
5 and expansion of nuclear power in this State.  
6 It identifies those aspects of nuclear power  
7 generation that pose potential threats to our  
8 safety and well-being and requires them to be  
9 studied and resolved to the satisfaction of  
10 both federal and State agencies, as well as the  
11 Legislature before a single new facility is  
12 approved or built. It does not say that nuclear  
13 facilities shall not be constructed in our  
14 State; it does say that such construction as  
15 is necessary shall be undertaken with prudence  
16 and deliberation, and with the benefit of the  
17 best and most up-to-date technological know-  
18 ledge available. Moreover, in designating the  
19 State Energy Facility Agency as the Legislature's  
20 primary State advisory body in matters relating  
21 to nuclear safety, it promotes the integration  
22 and unification of our State's energy policy,  
23 and guards against the dispersion of policy-  
24 making bodies in this area. That, for the  
25 moment at least, characterizes the Federal

1                   energy bureaucracy.

2                   In relationship also to that bill,  
3                   despite the fact that it pertains to land use,  
4                   this also is meant to include, and amendments  
5                   will make this clear, the use of the ocean as  
6                   well and will address itself to the various  
7                   safety factors that may be considered as  
8                   unique for floating nuclear plants.

9                   The next witness will be Senator Frank  
10                  Dodd. Pat?

11                  SENATOR DODD: Thank you, Mr. Chairman.  
12                  Ladies and gentlemen, thank you for the opportu-  
13                  nity for being here this morning, and I compli-  
14                  ment you for coming out. We have to be here.  
15                  You don't; and it's a compliment to you, for  
16                  no matter what side of the issues you're on,  
17                  you made the effort and this is gratifying to  
18                  us. The Energy Facility Siting Act sponsored  
19                  by Senator McGahn and myself is, I read in  
20                  some accounts of the local papers, that we're  
21                  usurping all the local authority and we're  
22                  stripping the citizens' rights to say where  
23                  and what belongs. It's not that at all. There  
24                  wouldn't be a highway built in this State if  
25                  it was left to each and every municipality,

1 because of the nature of it. You would not  
2 have regional sewerage authorities. You would  
3 not have regional water authorities. You  
4 would not have regional schools, because it is  
5 not the nature of a municipality to look out  
6 for the entire good of the State or the region.  
7 Municipalities is just that; it takes care of  
8 its own needs.

9 Our job on the State level is to seek  
10 the needs and what is in the best interest of  
11 the entire State, of all the citizens of the  
12 State. That is the simple reason for the  
13 State Energy Facility Siting Act. People say  
14 that we can do without additional energy in  
15 this State. Conservation; no one stresses  
16 conservation any more than Senator McGahn and  
17 myself, but that's not enough. And we know  
18 realistically that we cannot grow in this  
19 State. We will become stagnant and fall far  
20 behind, farther behind than we are right now,  
21 in the nation and indeed the world  
22 unless we, which our major industry in this  
23 State -- that's with all due respect to  
24 tourism, Senator McGahn -- is the production  
25 and processing of energy. That is the number

1           one industry in New Jersey. How do we go about  
2           facilitating the location of various sites  
3           right now? Right now it's piecemeal; it's by  
4           chance. It's the Exxon Corporation dealing  
5           with a small municipality. That's not the way  
6           to do it, folks. That's not logical. There  
7           is no master plan right now for the State of  
8           New Jersey in regard to its energy policy.  
9           This is a small attempt, along with many other  
10          bills that are pending, to establish once and  
11          for all a twenty-five-year projection of  
12          where New Jersey is going in respect to its  
13          energy needs.

14           We know what's coming. We know what's  
15          coming off our Atlantic coast in the next few  
16          years in regards to offshore drilling and  
17          development. I wish that the oil was found  
18          off of Rhode Island, off of Virginia, but it's  
19          not. It's off of the New Jersey coast, so  
20          they say. Now, the environmental degradation  
21          that could happen we all know about. I don't  
22          think I have to dwell on what can happen, if  
23          there are accidents. But it doesn't necessarily  
24          mean that we can't impose sanctions as a State  
25          to minimize those risks and to take full

1 economic advantage of whatever may come.

2 We've got the risks, and this is one of the  
3 points that I've differed with our Governor  
4 in his regional approach to energy. The oil is  
5 off our coast, not off the coast of Maryland  
6 and Delaware. It's not off the coast of New  
7 York and Connecticut. And yet, the Governor is  
8 willing to share the economic benefits, and  
9 we're going to get all the environmental risks.

10 I say let's keep it. Let's keep it for our-  
11 selves. Regionalization; yes, once we have  
12 our own master plan, once we have our own  
13 economic sense and once we're satisfied,  
14 completely satisfied, that the environmental  
15 restrictions that we can place on drilling and  
16 offshore development and onshore development  
17 as well as to our, the State's, satisfaction.

18 There are many other points that I  
19 could make, Senator McGahn, but I note the  
20 list of speakers, and I would be more than  
21 happy to be here and answer any questions.  
22 Thank you very much.

23 SENATOR McGAHN: Senator, thank you  
24 very much. Actually, several criticisms have  
25 been leveled at this bill. One, of course, is

1           that it completely preempts the existing land  
2       uses that are currently on the books. It  
3       preempts the CAFRA Act; it preempts Wetlands  
4       and it preempts Floodplain Zoning. Would you  
5       kindly address yourself to that?

6           SENATOR DODD: The bill would establish  
7       one stop shopping for sitings of energy needs  
8       taking into consideration all the acts that it  
9       would bridge. There would be public hearings  
10      in the municipalities, in the counties, in the  
11      regions. And as much public input as possible  
12      to go into these decisions, these are not  
13      decisions to be made in a demagogic fashion,  
14      where the State is going to come in and say,  
15      "You're going to get this whether you like it  
16      or not." That is not the intent of this bill.

17           SENATOR McGAHN: Thank you very much.  
18      I'm happy to hear you bring that out. And I  
19      think to further amplify that, this certainly  
20      does not preempt any of these. As a matter of  
21      fact, Actually there's a specific section in  
22      the bill at the tail end that says this will  
23      not be the exclusion of the DEP as far as both  
24      CAFRA, as far as Wetlands and what not are  
25      concerned. At the present time the Coastal

1 Zone Management Act, which is the CAFRA Act  
2 as far as we're concerned, is a review, appli-  
3 cation and approval type of process, and the  
4 DEP, by law, by statute is responsible for  
5 coming up and approving energy and energy-  
6 related facilities that may be in the CAFRA  
7 zone. The bill itself basically for that as  
8 a prerequisite. It also calls for public  
9 hearings. It calls for both generic public  
10 hearings on the plain itself and it calls for  
11 individual site hearings as far as individual  
12 sites are concerned. So that I simply,  
13 basically, wanted to bring that out.

14 Now I have no further questions on that,  
15 Senator. Thank you very much.

16 SENATOR DODD: Just one further  
17 comment, perhaps, Senator McGahn, for all of  
18 us to keep in mind, not only today's hearings  
19 but as things develop in this State that every-  
20 one wants progress but not in their neighbor-  
21 hood.

22 SENATOR McGAHN: Let me make another  
23 comment concerning that. There's been  
24 criticism concerning the powers of eminent  
25 domain that would be given to this agency.

1           However, I would like to say here that this  
2           Act provides for State acquisition of necessary  
3           lands that were here under the eminent domain  
4           provision. However, this is only to be used  
5           after the industry has first sought unsuccessfully  
6           to negotiate with the owners of the property  
7           and only after agreement for just compensation  
8           concerning those lands. So we're not talking  
9           about the usual type of eminent domain proceeding.

10           Mr. Sheldon Schwartz, who represents  
11           the Nuclear Regulatory Commission, was unable  
12           to be present and he has submitted a written  
13           testimony for the record.

14           At this time I would like to call upon  
15           Mr. Daryl F. Todd, a member of the Atlantic  
16           County Board of Freeholders. He's also  
17           Chairman of the Tricounty Offshore Development  
18           Control Committee.

19           Mr. Todd?

20           MR. TODD: Mr. Chairman, with your  
21           permission, I would like to sit, if I could.

22           SENATOR McGAHN: I would like to  
23           recognize the chairman of this committee,  
24           Senator John Russo who just floated down from  
25           Ocean County, and also in the chamber is that

1           eminent fur trapper, Donald Stewart, who is the  
2           Chairman of the like committee in the Assembly.  
3           Don, would you care to join us?

4           MR. STEWART: It's a lot safer out  
5           here, Doctor.

6           SENATOR McGAHN: Mr. Todd?

7           MR. TODD: Mr. Chairman and members of  
8           the committee, thank you for the opportunity to  
9           appear here today to express to you my feelings  
10          concerning the legislation before you. I  
11          appear as a Freeholder of Atlantic County  
12          Chairman of it's Offshore Development Control  
13          Committee. I also chair the Tri-County  
14          Offshore Development Control Committee which  
15          is advisory to the Freeholder Boards of the  
16          three counties and serves as a think tank on  
17          environmental issues in South Jersey.

18          Getting right to the heart of it, let  
19          me first comment on S-1494, the moratorium  
20          bill. The Atlantic County Board of Freeholders  
21          on June 9, 1976 by Resolution adopted a  
22          position in support of S-1494. I attach a  
23          copy of that Resolution for submission into the  
24          record with my remarks today. It should be noted  
25          that that vote was unanimous and bipartisan.

1           The stated legislative findings and declara-  
2           tions at the beginning of S-1494 is a good  
3           summary of our concerns here in Atlantic  
4           County. The issue of the proposed floating  
5           nuclear power plants was the subject of public  
6           debate here in Atlantic County in 1974 which  
7           resulted in a public referendum on that issue  
8           in November of that year when the voters of  
9           Atlantic County overwhelmingly expressed their  
10          opposition to those proposed plants with a  
11          vote at that time of 62% against it. With  
12          additional education on the issue that has  
13          come since that time and with the developments  
14          within the nuclear field, I feel certain but  
15          that a vote taken at this time would reveal  
16          opposition to be at the level of 75 to 80%.  
17          Let me suggest the following changes to S-1494  
18          to strengthen it:

19                 1. the definition of moratorium  
20          should be expanded to include the permit  
21          application process. We counties of Atlantic,  
22          Cape May and Ocean are being put to significant  
23          expense to defend the applications made in the  
24          Atlantic Generating Station Case and the  
25          Offshore Power Systems Case which are presently

1 pending before the Nuclear Regulatory Commission.  
2 The NRC has no mechanism for our counties to  
3 avoid this great cost. In New Jersey we have  
4 a better system. If the Public Advocate decides  
5 to defend a rate application increase before  
6 the PUC the cost of his experts are paid for  
7 by the applicant for the rate increase. And  
8 that is as it should be. This is a proper cost  
9 of doing business that should be borne by the  
10 utility. At the NRC presently we are not only  
11 defending the manufacturing license application  
12 but also the siting application. The applicant  
13 has not even had to establish the legal right  
14 to manufacture the plants before instituting  
15 the siting application. Certainly this is  
16 unjust and if you do not expand the definition  
17 of moratorium then I would suggest separate  
18 legislation through your committee to prevent  
19 the abuse that the utilities have in spending  
20 unlimited resources on these applications while  
21 the hardpressed governmental bodies subject to  
22 close control by the taxpayers are simply not  
23 able to match on a dollar-for-dollar basis.  
24 While I realize that you cannot enact legis-  
25 lation that would infringe on the rights and

1           responsibilities of the Nuclear Regulatory  
2           Commission, I do believe that a simultaneous  
3           filing process would solve the problem. By  
4           that I mean legislation should be enacted  
5           requiring filing with the State of New Jersey  
6           at the same time that a filing is made with  
7           the Nuclear Regulatory Commission. I do  
8           believe that separate legislation is more  
9           appropriate than a redefinition of moratorium;  
10          but I offer this definition change as a short  
11          term stop gap proposal.

12         2. A discussion of evacuation plans  
13          in paragraph c of Section 5 should be changed.  
14          As presently drawn it limits the necessity for  
15          evacuation plans to those accidents of a size  
16          that the NRC says it credible. Unfortunately,  
17          this does not include the Class 9 accident by  
18          their definition. If we were to have a core  
19          meltdown there would have been no evacuation  
20          plans required by this legislation. I attach  
21          to my remarks for insertion in the record a  
22          copy of the letter of Dr. Glenn Paulson,  
23          Assistant Commissioner for Science of the  
24          Department of Environmental Protection dated  
25          December 2, 1976 which talks specifically to

1           this issue.

2           3. Paragraph a of Section 9 which  
3        deals with the make up of the Study Commission  
4        should in my judgment should be changed. The  
5        State Energy Office has certainly not received  
6        the proper emphasis in New Jersey and I there-  
7        fore do not believe that a representative of  
8        their office should be on the Study Commission.  
9        Until that office has been upgraded it seems  
10      much more appropriate that a representative  
11      of the Department of Environmental Protection  
12      be on the Study Commission.

13       4. There is no provision in the bill  
14      requiring that the advisory group be subject  
15      to the Open Public Meetings Act. Because of  
16      the highly controversial nature of the work  
17      that they will be undertaking and because of  
18      the intense public interest in it, certainly  
19      they should be made subject to the Sunshine  
20      Law.

21       5. Paragraph f of Section 9 should  
22      be changed to provide for the advisory group  
23      having one year within which to report its  
24      findings and recommendations. A six month  
25      period is just not realistic. I served on

1                   the Atlantic County Charter Study Commission  
2                   which recommended a change in Atlantic County's  
3                   government. We had nine months to do the work  
4                   and our work was not of the technical nature  
5                   that this will be. Because the advisory group  
6                   will have representatives from throughout the  
7                   State of New Jersey serving without compensa-  
8                   tion, it is seemingly impossible in my judgment  
9                   for them to complete the work within six  
10                  months. I would anticipate it would take  
11                  between one and two months to fully organize  
12                  the work schedule.

13                 6. Finally I would suggest that the  
14                 authorization for the advisory group be changed  
15                 from \$50,000 to \$100,000. The amount of  
16                 information available on this issue could  
17                 virtually fill this room. Just to acquire,  
18                 read and assess that information will require  
19                 a technical staff and secretarial staff of some  
20                 size. Also, I am using my expertise with the  
21                 Atlantic County Charter Study Commission and  
22                 my knowledge of the budgets of the various  
23                 counties through the State that did such  
24                 studies to make this recommendation.

25                 Let me now address myself to the

1 other two bills. The Tri-County Committee at  
2 its meeting at Ocean County College on March 11,  
3 of this year unanimously opposed S-1407. The  
4 Atlantic County Board of Freeholders at its  
5 meeting March 29, of this year also unanimously  
6 opposed it. Certainly the main objection is  
7 the establishment of an independent agency with  
8 no qualification other than being democrats  
9 or republicans with powers of eminent domain  
10 dealing with sophisticated decision making  
11 responsibilities. Whereas in S-1494, the  
12 moratorium bill, the makeup of the advisory  
13 committee is balanced, there is no hint or  
14 suggestion even that it would be so in this  
15 bill. The Board of Freeholders of Atlantic  
16 County and the Tri-County Committee are totally  
17 opposed to the concept of one-stop shopping  
18 referred to in paragraph e of Section 2. The  
19 multiple permit system that we have now allows  
20 for proper checks and balances and for the  
21 public to have proper input over a period of  
22 time on many issues. The preemption of the  
23 roles of the municipal planning boards and the  
24 county planning boards should not be encouraged.  
25 The emphasis should be on the upgrading of the

1                   quality of these boards rather than taking  
2                   away significant powers from them.

3                   Paragraph b of Section 2 also refers  
4                   to energy parks being used wherever practical.  
5                   This certainly brings to mind the issue of  
6                   clustering of nuclear generating plants. This  
7                   met with vehement opposition in South Jersey  
8                   when suggested for Ocean County and I attach to  
9                   my remarks for insertion into the record the  
10                  Resolution of the Atlantic County Board of  
11                  Freeholders January 27, 1976 - more than one  
12                  year ago - opposing the clustering concept.  
13                  This Resolution was also passed unanimously  
14                  by a bi-partisan vote.

15                  Paragraph g of Section 2 talks of  
16                  cooperating with other states and the Federal  
17                  government. At the very least the language  
18                  should indicate "cooperate but not rely upon"  
19                  those other governments.

20                  I could make a number of suggestions  
21                  for minor revisions in the bill; but to do so  
22                  would prolong my testimony and perhaps cause  
23                  you to miss my main point. This bill should  
24                  not be enacted into law because it creates a  
25                  superagency with immense powers not controlled

1 by the voters. It is never the intention to  
2 create an agency that will frustrate the public  
3 will. However, the record is often clear that  
4 officials not subject to voter removal are less  
5 responsive to public attitudes. I do not  
6 mean to talk basic political science; but it  
7 must be noted that we live in a participatory  
8 democracy where the people look to their elected  
9 representatives for key decision making. This  
10 bill would change that process. The tie-in  
11 to the legislature by them having a veto power  
12 is weak at best. It gives too many elected  
13 officials the opportunity to say that they will  
14 rely upon the so-called expert opinion of others.  
15 The concept expressed in Paragraph h of  
16 Section 2 to establish a comprehensive ongoing,  
17 well-designed program of study and research  
18 into the environmental, social, economic and  
19 technical aspects of energy-related facility  
20 development is in my judgment a sound and  
21 proper one. I just disagree with the method  
22 of carrying it out. A properly financed  
23 state energy office with a position of impor-  
24 tance within state government could and should  
25 accomplish many of the things called for in

1           this bill without the powers of eminent domain  
2           and licensing. Those items mentioned in  
3           Section 12 could be accomplished by the  
4           state energy office.

5           The requirement in Section 13 that  
6           every energy industry and every energy related  
7           industry shall within a certain period of  
8           time submit an energies facilities plan is  
9           excellent.

10          Section 14 which calls for coordination  
11          of activities with the Department of Environ-  
12          mental Protection is also good. However, I  
13          believe that the major function of any legisla-  
14          tion such as this should be the gathering of  
15          information, receiving comment upon it and  
16          then the dissemination of findings. This would  
17          allow for private industry to know in a  
18          comprehensive fashion the general attitudes  
19          of municipal, county and state government as  
20          well as public interest groups. However, it  
21          would not change the basic framework of ultimate  
22          decision making. The extraordinary relief  
23          to the energy industry posed by this bill does  
24          not seem warranted especially since it provides  
25          no safeguard for balanced decision making.

I also oppose the supplemental Bill S-1721 because of its tie-in with the State Energy Facility Agency. If it were drawn so as to require the state legislature to be the decision-maker, then I would support it.

Naturally I much prefer the enactment of S-1494.

That concludes my remarks. Thank you for the opportunity to be here today.

SENATOR McGAHN: Thank you. Senator Russo?

Would you try to hold the applause down.

SENATOR RUSSO: Not all of it. I'll pass for the moment, Senator McGahn.

SENATOR McGAHN: Mr. Todd, the Resolution filed by the County Board of Freeholders, does this apply only to the floating nuclear plant or does this apply to nuclear plants in the State in general?

MR. TODD: The support for S-1494 was unlimited. However, I must indicate to the Committee that the reason, the genesis for it coming to fruition before the Board of Freeholders was because of our opposition to the floating nuclear power plant. It was felt

1           this would be another pull in our arsenal to  
2           postpone and ultimately defeat the floating  
3           nuclear power plant.

4           SENATOR McGAHN: The criticism I think  
5           that you leveled about the energy facility  
6           siting bill, you must realize that at the time  
7           this bill was drafted and introduced, that  
8           there was no State energy office. The energy  
9           office was in limbo. As a matter of fact,  
10          some of the requirements for both of these  
11          agencies do overlap and at the present time  
12          the Governor has vetoed the State Energy Office  
13          Bill. So that, in essence, that is also  
14          really in limbo. So we do not have any energy  
15          policy plan despite what came out in the  
16          newspapers this morning about conservation.  
17          I think also one of the most important facets  
18          of this bill is the impact of offshore drilling.  
19          We're talking about energy related facilities.  
20          We're not talking energy -- should I say  
21          nuclear energy plants or energy sitings. I  
22          think the criticism, as far as nuclear clustering,  
23          I think, was concerned, this was an unfortunate  
24          thing, as far as the energy parks are concerned.  
25          The concept here, I think you know, was not

1 for nuclear clustering, because I think you  
2 know at the present time the NRC has given up  
3 on that particular project. Dr. Morell, if  
4 he's here today, will testify to that, who's  
5 the individual who was largely responsible for  
6 the book put out on that or the discussion  
7 concerning that.

8 I think an important thing here,  
9 basically to remember, is that at the present  
10 time under the Coastal Zone Management Act  
11 we really do not have anything, even CAFRA  
12 does not give us protection, as far as what  
13 will be our own particular coastal zone, as  
14 far as management is concerned, because  
15 actually not until September of '77, of this  
16 year, will actually a management plan be  
17 completed; then given to the Secretary of  
18 Commerce, and we do have two provisions there  
19 and that's the Federal Consistency Doctrine  
20 and the National Interest Doctrine, both of  
21 which, frankly, have not been really defined.  
22 But on that basis, unless the State length is  
23 consistent with the Federal plan, very frankly  
24 we could be preempted, as far as anything is  
25 concerned. I think that, granted, maybe work

1           would be needed upon this, but you must look  
2           at this thing in terms of a broad view. Now,  
3           I have been hearing for a long time about land  
4           use plans in this State that an energy siting  
5           act was necessary. As a matter of fact, an  
6           assembly committee in 1972 made this provision  
7           that there should be an energy facility siting  
8           act; that it should be on the level, as far as  
9           the State is concerned; that local units of  
10          government would not be responsive or responsible  
11          for what would be happening, as far as their  
12          particular neighbors are concerned. We're  
13          talking about something that's a state-wide  
14          proposition. I grant in here there are some  
15          areas that maybe overlapping, and certainly if  
16          the State Energy Office is finally approved  
17          and put wherever the situation may be -- and  
18          hopefully it would be greater, because as far  
19          as I'm concerned, it should be at a cabinet  
20          level -- my own personal opinion -- and this  
21          is shared by numbers. But unfortunately, it's  
22          not shared by the Governor at this time.

23           MR. TODD: Mr. Chairman --

24           SENATOR McGAHN: Then I think that  
25          some provisions may be made. Yes?

1                   MR. TODD: Mr. Chairman, if I could  
2 just comment briefly, what I'm getting at here  
3 is the extraordinary relief that is called for  
4 in this bill. Senator Dodd in his comments  
5 indicated that we have regional sewerage and  
6 regional schools and I would agree we do have  
7 those regional concepts. But what is being  
8 proposed here is so extraordinary, because  
9 what it does is bypasses the region and goes  
10 right to the State. It seems to me -- and we  
11 have discussed it at the Tri-County Regional  
12 Committee the possibility of having regional --  
13 regionalization of energy issues. It seems  
14 to me that should be the first attempt made by  
15 the State government, rather than taking it on  
16 themselves to do that on a State basis, let  
17 Atlantic and Ocean and Cape May Counties get  
18 together on a three-county basis, if you must  
19 go to extraordinary relief. But let us control  
20 our own destiny by a region, do it on a  
21 regional basis. Certainly the State basis,  
22 in my judgment, now is not called for. So,  
23 you know, we have right now in Atlantic City  
24 hotels coming in and buying land and doing it  
25 through private industry without the aid of a

1 State government. It seems to me that we should  
2 continue to work with the decision-making  
3 process that we have, because we have had in  
4 New Jersey an upgrading through our Municipal  
5 Land Use law, which I'm sure you gentlemen are  
6 intimately familiar with, which does provide  
7 for a regionalization concept in that bill  
8 with respect to new municipalities working with  
9 other municipalities. So it seems to me there  
10 are other mechanisms for trying to accomplish  
11 a broader approach than having Exxon dealing  
12 with the municipality, but certainly it seems  
13 to me that this is not the approach at this  
14 time. Thank you very much.

15 SENATOR McGAHN: Thank you. Dr. Glen  
16 Paulson representing Commissioner David Bardin.  
17 While Dr. Paulson is getting ready to come up,  
18 let me make a comment about what they're saying  
19 about information, how easy it is to get it or  
20 not. Certainly this is a dateline Trenton.  
21 The State wanted to learn about the kind of  
22 development that might come to New Jersey as  
23 a result of offshore oil drilling. The major  
24 oil companies did not volunteer much informa-  
25 tion, the Department of Environmental Protection

1        said David Kinsey, Chief of the Office of  
2        Coastal Zone Management said the utility  
3        companies operating in the area gave a detailed  
4        response to the Department's questionnaire.

5        Most oil companies said very little. This is  
6        one of the things that that particular bill  
7        could mandate.

8                   DR. PAULSON: Senator McGahn, gentlemen,  
9        first I'd like to introduce Miss Edith Casey  
10      of my immediate staff who's here and who will  
11      give you a copy of my prepared comments and  
12      also a copy of the report that you just  
13      referred to that we released yesterday. In  
14      addition, elsewhere in the room is Wes Denman  
15      our Public Information Officer from the  
16      Department of Environmental Protection. In  
17      the interest of time I'll abbreviate my  
18      prepared remarks substantially. My name is  
19      Glen Paulson. I'm Assistant Commissioner in  
20      the Department of Environmental Protection.  
21      I'm appearing here today in response to  
22      Senator Russo's invitation to Commissioner  
23      Bardin to testify on the legislation before  
24      you. I would like to state, for the record,  
25      at this moment that immediately after President

1 Carter nomination of Commissioner Bardin to  
2 become Deputy Administrator of the Federal  
3 Energy Administration the Commissioner informed  
4 the Governor and his immediate staff that he,  
5 as of that time, has divorced himself from any  
6 energy related decisions or energy advice  
7 within the State government, pending the  
8 resolution of that nomination. I'll discuss  
9 each of the pieces of legislation in some detail  
10 in a couple of minutes, but I think perhaps a  
11 brief overview regarding energy facility  
12 siting as it has been dealt with, particularly,  
13 at the State and Federal level around the  
14 country might be useful. As of last June  
15 twenty-three states of the Union have adopted  
16 some sort of formal and explicit energy siting  
17 legislation. If New Jersey's CAFRA Act were  
18 counted as a siting law, the number would be  
19 twenty-four. New York, Maryland, Ohio and  
20 Oregon are some of the states that have moved  
21 in this direction. Generally, however, these  
22 state laws cover only electricity producing  
23 power plants and their related transmission  
24 lines. Only rarely have they been extended  
25 to cover other energy production facilities.

1           New Jersey, under CAFRA and California perhaps  
2           have gone somewhat further down that legislative  
3           path than most other states.

4           To the best of our knowledge, no state  
5           has adopted statewide legislation that brings  
6           all types of energy facilities under a single  
7           purpose energy facility siting agency, perhaps  
8           because it is extremely difficult to design  
9           a single system which would fairly recognize  
10          and properly weigh the different characteristics  
11          of and all the various issues raised by the  
12          wide variety of energy facilities in the  
13          United States, which range from hugh base-load  
14          power plants to small portable gas turbines,  
15          from refineries to neighborhood gas stations,  
16          from overhead transmission lines to underground  
17          neighborhood gas lines and so forth.

18          The siting of energy facilities is an  
19          important question and has been recognized as  
20          such for some time. However, the complex web  
21          of issues revolving around energy have other  
22          threads as well. The possible exploitation of  
23          new types of energy, such as solar energy,  
24          for example. The potential of energy conserva-  
25          tion, use of waste heat at industrial

1 facilities to produce electricity for consump-  
2 tion elsewhere and other technics all carry  
3 the potential of reducing the need for sites  
4 for new energy facilities of all types.

5 There is no federal legislation  
6 generally dealing with the active selection  
7 of sites for energy facilities, with the  
8 exception of natural gas pipelines. This,  
9 however, is not to say that federal agencies  
10 have no review and approval rule. One example  
11 of federal review is shown by the direction  
12 last week by the NRC that concrete can now be  
13 poured for the construction of the Hope Creek  
14 Nuclear Reactor. I'd like to mention, paren-  
15 thetically, that DEP approval of that reactor  
16 was issued over a year and a half ago. The  
17 NRC is also conducting, as has been mentioned  
18 before, a major review of their proposed  
19 floating nuclear power plant. It is important  
20 to recognize that every state, including New  
21 Jersey, has a broad range of authorities  
22 relating to various aspects of energy production  
23 and the facilities involved in it. For example,  
24 in New Jersey CAFRA, Riparian laws and air and  
25 water pollution standards, among others, all

1 relate in some way to energy facilities.

2 Implementation of these laws has been changed  
3 in large part by my Department. The Public  
4 Utilities Commission, on the other hand, has  
5 different authorities relating to rates, needs  
6 for equipment and additional base-load plants  
7 and the like. And this does not exhaust the  
8 list of State authorities. From this perspective,  
9 the subject of nuclear power plants which is  
10 addressed in some of the legislation today is  
11 just one piece in the overall puzzle of issues  
12 related to energy facilities. Most of us will  
13 agree that of all energy facilities nuclear  
14 power plants are one of the most controversial.  
15 For this piece, more so than others, there are  
16 important Federal preemption questions, shown  
17 both in legislation and in Federal and State  
18 court decisions. This aspect of the energy --  
19 nuclear energy issue should be the subject of  
20 part of your debate. In the interest of time  
21 I'll try to abbreviate the balance of my  
22 testimony. It includes a summary dealing first  
23 with S-1407 of the Act. Senator Dodd summarized  
24 his legislation better than I possibly could,  
25 so let me go to our comments on it.

1                   First we endorsed the goal of rational  
2                   and timely decision-making regarding energy  
3                   facilities, including planning for the provision  
4                   of the facilities adequate for the State's needs  
5                   and consistent with environmental values and  
6                   the providing of information by industry to  
7                   that end. Senator McGahn has mentioned the  
8                   report we issued yesterday which detailed our  
9                   successes and our failures in trying to obtain  
10                  information from various energy industries.  
11                  We also welcomed the bill's recognition that  
12                  energy facilities have significant impacts on  
13                  regional land use patterns, especially in our  
14                  densely populated and heavily industrialized  
15                  State. Streamlining the review process, which  
16                  leads to yeses or noes of such facilities is  
17                  also a sound goal. In relation to this point --  
18                  and to associate myself with Freeholder Todd --  
19                  I would like to simultaneously stress the  
20                  importance of full participation by all  
21                  interested sectors of the public in these  
22                  decisions. Any streamlining of the bureaucratic  
23                  process should allow for expression of differing  
24                  viewpoints and full public exposure. The lack  
25                  of such consultation can and has led to

1 lawsuits and delay in many parts of the  
2 country, including our own region. In fact,  
3 the State Executive Branch is already moving  
4 to review and streamline State authorities.

5 In January Governor Byrne's Cabinet Energy  
6 Committee created a task force on power plant  
7 siting. This task force, chaired by PUC  
8 Commissioner McGlynn, and including representa-  
9 tives from the PUC, DEP, DCA and Labor and  
10 Industry. It has been meeting regularly to  
11 review current practices and devise a means to  
12 streamline State review and approval of power  
13 plants, and it anticipates offering its  
14 recommendations in the relatively near future.

15 This is in accord with Governor Byrne's  
16 intention, which he emphasized in his annual  
17 message this year to continue to streamline  
18 the State's regulatory procedures generally,  
19 as they relate to commercial and industrial  
20 projects. I've discussed the general contents  
21 of my testimony with Commissioner McGlynn on  
22 this point. Due to a combination of illness  
23 and prior agreements, I don't believe that the  
24 PUC is represented today, although I'm not  
25 certain. Commissioner McGlynn asked me to

1 relay the PUC's strong interest in this  
2 legislation and their offer to meet with you  
3 publically or privately to go over the points  
4 that they believe are important.

5 Next on the energy parks issue, the  
6 strong emphasis on energy parks in S-1407,  
7 which appears to apply to other categories of  
8 energy facility siting besides just nuclear  
9 power plants, we believe reflects outmoded  
10 thinking. Though the recognition of the  
11 potential need for buffer zones is sound for  
12 some types of energy facilities. Also the  
13 legislation does not reflect the recent analysis  
14 on the potential of energy conservation and  
15 the use of smaller and more dispersed energy  
16 facilities instead of fewer, larger ones.

17 On the environmental side, our Depart-  
18 ment does not believe that environmental values  
19 would be given adequate consideration in the  
20 permit process created by S-1407. Environ-  
21 mental impact statements would be published at  
22 the same time as, rather than before the  
23 agency grants a permit to construct. There are  
24 no requirements for making specific or detailed  
25 findings regarding environmental impacts, only

1           that general consideration be given to  
2           environmental values. The findings required  
3           in S-1407 are not explicitly defined, in  
4           contrast to the very specific findings under  
5           CAFRA. We believe that this runs the risk of  
6           devaluing environmental considerations in the  
7           review and approval of these facilities, as  
8           well as reducing the opportunity for interested  
9           segments of the public to review interim  
10           thinking as personified, for example, by a  
11           draft environmental impact statement at the  
12           Federal level. DEP is required to suggest  
13           sites and guidelines to the agency within six  
14           months of the effective date of the act. We  
15           doubt whether one-shot advice of this sort  
16           would be adequate and are worried that DEP's  
17           expert advice would not be binding on the  
18           agency -- neither, for that matter, is the  
19           advice from any other State agency. There  
20           appears to be no guarantee that only those  
21           sites considered suitable by DEP will be built  
22           upon. The certificate of site and facility --  
23           the operating instrument of the agency -- it's  
24           extremely inflexible; there is no explicit  
25           provision for changing the requirements of the

1 certificate in view of changing conditions,  
2 environmental demands or knowledge on environ-  
3 mental or public health effects. The juris-  
4 diction of the agency is potentially extremely  
5 broad -- Freeholder Todd has made that point  
6 very well, and I'd like to associate myself  
7 with his comments about the potential absence  
8 of checks and balances in this agency and his  
9 comments on public participation. I think in  
10 the interest of time I'll move to the nuclear  
11 acts now.

12 Both of these bills deal with nuclear  
13 power plants rather than all types of energy  
14 facilities. Before commenting on special  
15 features of these two bills, I wish to make  
16 some basic statements on nuclear power generally.  
17 First I'd like to remind you that about one  
18 year ago on March 10, 1976, DEP testified  
19 before this same committee specifically on a  
20 wide range of nuclear power issues. In that  
21 statement we dealt with radiation releases,  
22 nuclear waste disposal, catastrophic accidents  
23 and other questions. Our basic judgment has  
24 not changed since then on the issues we covered  
25 in that testimony. Because of the witness list

1 today I will not restate the information and  
2 conclusions we submitted to you a year ago,  
3 since they are readily available to you. But  
4 instead, focus on new issues raised by the  
5 legislation before you. One issue in this  
6 legislation is fuel reprocessing. This is  
7 closely tied to the question of plutonium use,  
8 and thus to the issue of nuclear weapons,  
9 proliferation and terrorist activities. DEP  
10 consciously addressed these issues in its  
11 review and approval, under CAFRA, of the Hope  
12 Creek Nuclear Station in September, 1975 when  
13 we banned the use of new plutonium-containing  
14 fuel rods in Hope Creek. This means, in effect,  
15 that fuel reprocessing cannot be used as the  
16 source of fuel for Hope Creek. If carried out  
17 nationally, such a policy could lead to the  
18 elimination of the need for fuel reprocessing  
19 facilities. In fact, according to recent  
20 press articles, the Federal government appears  
21 to be catching up to New Jersey's policy in  
22 this regard. President Carter's Energy Chief,  
23 James Schlesinger, according to widespread  
24 press reports, is currently leaning against  
25 the use of reprocessed plutonium in current

1 types of reactors. Thus reprocessing may  
2 become a moot issue.

3 Another issue before you is the  
4 relationship of nuclear power to energy demands.  
5 We all recognize that nuclear power is already  
6 a fact in New Jersey; nuclear plants help meet  
7 New Jersey's current electricity demands.

8 Again, in the Hope Creek decision over one and  
9 a half years ago, DEP recognized the link  
10 between any new power plant and energy demands.  
11 DEP required that the utility owning the plant  
12 submit to the PUC and the State Energy Office  
13 a comprehensive load management program which  
14 would, in effect, result in all of the utility's  
15 equipment -- not only the reactor, which is not  
16 yet built -- being used more effectively now  
17 to meet the future power or demands, as well  
18 as the present, thus reducing or at least  
19 delaying the requirements for new power plants  
20 of all types. For its part, independent of the  
21 DEP decision on Hope Creek, the PUC has already  
22 moved to take other steps, such as changes in  
23 rate structures to meet these same goals. For  
24 example, right now the PUC is conducting wide-  
25 ranging hearings on the costs and efficiencies

1 of power plants using nuclear fuel as contrasted  
2 with those using coal to help it determine the  
3 best mixture of facilities for New Jersey, and  
4 thus help provide the lowest possible electricity  
5 costs for its residents. Another issue before  
6 you is insurance. Both DEP's lawyers and the  
7 Attorney General's office have advised me that  
8 this issue, among others related to nuclear  
9 power, but particularly this one, may be  
10 subject to extremely strong Federal preemption.  
11 On that prejudging this question, I suggest  
12 that you carefully research the preemption  
13 issue carefully before enacting any State law  
14 which might be quickly overturned in the courts.  
15 We all have enough important tasks that are  
16 clearly the State's responsibility without  
17 wasting effort and resources on matters that  
18 Congress has reserved for the Federal govern-  
19 ment's attention. Now for some brief comments  
20 on each of the two bills.

21 First on S-1494, this is virtually  
22 identical to seven other nuclear moratoria bills  
23 which have been introduced in other states.  
24 All of these have been defeated. Also, several  
25 of its provisions raise serious questions of

1           Federal preemption, which merit further research.

2           The four-year moratorium which would be imposed

3           by S-1494, on the merits, might well be an

4           allusion for the following reasons: first,

5           since the act would not affect those plants

6           which are under construction as of the effective

7           date of the act, the act would not affect the

8           second unit at the Salem site, the two Hope

9           Creek units at the same site and the Forked

10          River reactor. Second, the only other plants

11          which might conceivably fall under the moratorium

12          would be the Atlantic Generating Station, a

13          two-unit station proposed for only a few miles

14          from here. However, since the State has

15          independent control over whether this plant

16          will be built, by virtue of the State's owner-

17          ship of the Riparian plans on which the reactor

18          would be located -- or more accurately, to

19          which it would be anchored -- the moratorium

20          would, in effect, be a redundant state control.

21          The Attorney General has already ruled that

22          the legislature has one part of the State's

23          control in the disposition of these Riparian

24          lands. To the best of DEP's knowledge, there

25          are no other present plans to initiate

1 construction within the next four years of  
2 any additional nuclear generating stations in  
3 the State of New Jersey. On another point,  
4 based on current Federal policies -- and  
5 Freeholder Todd made this point -- the section  
6 of the bill on evacuation plans is without  
7 effect, in that the maximum credible accident  
8 at a nuclear power plant in the NRC's view is  
9 by definition not serious enough to result in  
10 a significant radiation release to the nearby  
11 environment. Therefore, evacuation would not  
12 be needed. Sounds somewhat like a Catch 22  
13 definition policy by the NRC, I think you have  
14 the correct flavor of it. On balance, however,  
15 it might be useful for the legislature to  
16 appoint a blue ribbon commission to study the  
17 issue of nuclear power both generally and as  
18 it relates to the State of New Jersey. This  
19 might be advisable, because although much of  
20 the area has been preempted by the Federal  
21 government, the State has many vehicles, both  
22 direct and indirect, to either stop the  
23 construction of nuclear power plants or to  
24 dictate the manner, type and size of those  
25 plants. However, given the complexity of the

1           issues, it is doubtful that such a study  
2           could be thoroughly done if only \$50,000, the  
3           proposed appropriation, were available.

4           And finally, let me turn to S-1711.  
5           This legislation is essentially identical to  
6           legislation signed into law by Governor Brown  
7           of California last June, recast in a way to  
8           meld it with the Energy Facility Siting Agency  
9           proposed in S-1407. I think I have already  
10          adequately covered two of its points, fuel rod  
11          reprocessing and disposal of high level wastes  
12          today and in our testimony of a year ago March,  
13          respectively, and there only remain two other  
14          points to make. First, while a study of  
15          undergrounding may be useful in New Jersey,  
16          we are not certain that New Jersey's coastal  
17          plain is, in fact, technically suitable for  
18          undergrounding, given it's sandy nature, the  
19          presence of ground water close to the surface  
20          and other factors. The coastal plain is the  
21          source of the major potential cooling water  
22          supplies. The areas of New Jersey, the skylands  
23          in northwestern New Jersey which might be  
24          suitable for undergrounding probably wouldn't  
25          have enough cooling waters, so undergrounding

1 may be moot throughout the State for a variety  
2 of reasons. Perhaps we would be wise to see  
3 what California concludes from its study of  
4 undergrounding before choosing to look in that  
5 direction ourselves. Second, we do not believe  
6 that a credible look at the issues defined  
7 in this bill can be mounted without substantial  
8 amounts of money. This bill contains no  
9 appropriation. The bill that it supplements,  
10 S-1407, provides an appropriation of a quarter  
11 of a million dollars to carry out all the  
12 functions of the proposed new State agency for  
13 all types of energy facilities, including the  
14 nuclear issues addressed in S-1721. In con-  
15 trast, the California agency responsible for  
16 the implementation of the nuclear issues only  
17 has budgeted over two and a half million dollars  
18 over a two-year period just for carrying out  
19 the nuclear tasks. While all of us are trying  
20 to improve the efficiency of the State govern-  
21 ment in New Jersey, I doubt if any of us  
22 would claim we are ten times as efficient as  
23 the State of California. This concludes our  
24 prepared testimony. I'd be glad to answer any  
25 questions that you might have.

1 SENATOR RUSSO: Excuse me, Doctor, I  
2 was going to say that with the exception of  
3 the Department of Environmental Protection we  
4 might well be.

5 DR. PAULSON: I'd be glad to answer  
6 any questions.

7 SENATOR RUSSO: It does bring to mind  
8 really and seriously the question, because  
9 I'm not sure I completely understood you, that  
10 one of your prime objection is the inadequacy  
11 of the funding. Do I understand that were we  
12 to spend more money, were we to, in your  
13 judgment, adequately fund the bill, that it  
14 would make sense and solve the objections,  
15 the major objections, that you have to it?

16 DR. PAULSON: I think we have basically  
17 a two-part position. The first part is for  
18 those issues that that particular bill deals  
19 with we do not believe that there is adequate  
20 money in the proposed appropriation for the  
21 agency to do a credible job of independent  
22 analysis as it relates to New Jersey, New  
23 Jersey's terrain, New Jersey's coastal plain,  
24 New Jersey's geology, water supplies and the  
25 like. Beyond that, we wonder if some of the

1 issues are relevant; if undergrounding is  
2 even something that should be seriously  
3 considered in New Jersey. Berm containment,  
4 actually building the reactor on the surface  
5 of the earth and then encasing it, if you  
6 will, in an artificial hill, may be worth  
7 attention. But we wonder whether a few tens  
8 of thousands of dollars would be adequate to  
9 address and help decide just that specific  
10 issue. And the other questions of fuel  
11 reprocessing, waste disposal and the like  
12 similarly will take money to do a thorough  
13 job.

14 SENATOR RUSSO: You see what concerns  
15 me is I have a very high regard for your  
16 ability over these -- from observing you these  
17 last several years, and what concerns me is  
18 that I have to make a decision up here. There  
19 are three senators up here and two of them have  
20 a vested interest. They're sponsors. There's  
21 only one that has an open mind and that's myself,  
22 because I'm not a sponsor and I have to try to  
23 make a judgment. And an expert such as your-  
24 self sits there and he wonders; he wonders.  
25 Now come on, you know, and I'm going to ask

1                   future witnesses the same thing. I'm not so  
2                   much interested in hearing what's wrong with  
3                   the bill as I am is there a need for the bill,  
4                   and if so, how can we correct it to make it  
5                   right. Do you see? So simply say, for  
6                   example, and I don't mean to say -- I'm really  
7                   sort of talking beyond you to future witnesses  
8                   so we can accomplish something -- to simply  
9                   say if that were all that were being said,  
10                  there's not enough money or gives the State  
11                  too much control, doesn't help me at all in  
12                  making a judgment. What I want to know from  
13                  you and other witnesses, is there a need for  
14                  something like this bill? If there isn't,  
15                  then there's no sense -- the rest doesn't  
16                  matter whether there's enough funding or not.  
17                  If there is a need for it but there's something  
18                  wrong with the way it's been prepared by its  
19                  sponsors, how do we correct? And I really  
20                  wanted to get a little more into this with  
21                  Freeholder Todd, too. I thought he made a good  
22                  presentation, but he also seemed to be saying  
23                  we need something but this isn't it or this  
24                  isn't quite right. What is, you see? How can  
25                  we correct it to make it right? This

1 Committee can amend these bills. We can amend  
2 them, as you know, Dr. Paulson in minor fashions  
3 or we can amend them so broadly the sponsors  
4 won't want anything to do with them, and we've  
5 done both in the past. So that's what I'm  
6 particularly interested in. Is there a need?

7 DR. PAULSON: Let me respond with  
8 reasonable precision. As a matter of policy,  
9 our Department has believed that the develop-  
10 ment of nuclear power plants in New Jersey and  
11 elsewhere and the development of other energy  
12 facilities, whether they're well known elsewhere  
13 but not known here yet, such as, for example,  
14 offshore oil and gas drilling, or whether  
15 they're not known anyplace yet in the United  
16 States, such as deep water ports, merit review  
17 by New Jersey to look out for its own interests.  
18 We also recognize as a practical matter that  
19 the State does not have, including the budget  
20 of the State as approved by you, the budget as  
21 sorted out amongst the various departments,  
22 doesn't have the resources to reinvent the  
23 wheels that the Federal government has brought  
24 to bear on some of these technologies. So our  
25 basic view has been to closely follow and

1           actively participate in the several kinds of  
2           Federal review processes where we find points  
3           of omission in Federal processes such as, for  
4           example, the catastrophic accident potential  
5           in the floating nuc, to demand that our Federal  
6           government anaylsis that to our satisfaction,  
7           and in addition where we find gaps which the  
8           Federal government either will not fill,  
9           either because of legislative limits or  
10           disinterest, to move to make separate analysis,  
11           the best area here I think is that the Federal  
12           government has refused to commence the announced  
13           study to evaluate different pipeline corridors  
14           from the offshore oil field to the shore,  
15           whether the shore is the Jersey shore, the  
16           Delaware shore or the New York shore. They  
17           have simply refused for the last two years to  
18           do that and we have been unable to budge them  
19           off that position to do the work in their  
20           waters beyond the three-mile limit. We are,  
21           therefore, moving to commit some of our  
22           coastal zone planning money for within the  
23           three-mile limit to look at least at the  
24           State's waters and the State's land. We would  
25           much prefer to be working jointly with the

1           Federal government in tandem in a joint review.  
2           There would be much more cost effective for  
3           the State that way. Instead we're having to go  
4           it alone. Now on the nuclear bills before  
5           you, I have said, Freeholder Todd has already  
6           introduced a letter of mine on one of these  
7           issues. We have made other pronouncements  
8           about individual reactors in the State, nuclear  
9           power and the like. We are not insensitive  
10          to these issues. And I would suggest that  
11          rather than focus on the issues before you in  
12          this legislation, that you find a means to  
13          pluck the brains not only of us, ours is  
14          relatively available. It's quite close to the  
15          State House and so on, but of other major  
16          actors in the nuclear drama, the California  
17          agency, the American Physical Society, the  
18          Ford Foundation Study Group report which just  
19          came out within the last couple of weeks, to  
20          identify, first, the issues that have not been  
21          looked at yet; second, that nobody else is  
22          looking for or looking at adequately, and that  
23          those be the ones that you consider New Jersey  
24          looking at. Now I don't have a list in my hip  
25          pocket or in my brain today of what those

1 issues might be. I do have some thoughts,  
2 however, and I dare say that there are many  
3 others in this room that would have thoughts  
4 of issues that no one has looked at yet or is  
5 yet looking at. And if you're serious in your  
6 intention to look at the issues and provide  
7 the adequate funds, and we're talking about  
8 figures on the order of the California amount.  
9 This book costs about a million and a half  
10 dollars, for example, the California study,  
11 a million and a quarter for two years. Then  
12 I think you could summon together from within  
13 and without the State people who could help  
14 you define those issues, decide what the  
15 resources would be needed to do the job and  
16 then do them. And I make no predisposition or  
17 comments here about where the right place to  
18 do the work is. It could be a legislatively  
19 mandated Commission. It could be an existing  
20 agency. It could be a new agency. It could  
21 be a combination.

22 SENATOR RUSSO: You have developed an  
23 amazing ability as a scientist to talk like a  
24 politician.

25 DR. PAULSON: I consider myself a

1 political scientist, Senator Russo.

2 SENATOR RUSSO: Thank you.

3 SENATOR McGAHN: I think the reason  
4 for that they both wear beards. And I think  
5 some of Dave's technic has got off on you.  
6 Thank you very much for your testimony. Let  
7 me say this: are these bills necessary? I  
8 think you well know that these bills are  
9 drafted on the California bill, both of them  
10 and we consider this basically the springboard  
11 to come to what may be actually necessary for  
12 the State of New Jersey. We realize also the  
13 circumstances that existed in California are  
14 not exactly the same for New Jersey. We  
15 realize also, I think as you do as you talked  
16 to that issue, and I certainly agree with you  
17 here because I think we're confronted with  
18 issues as far as reactor safety is concerned,  
19 as far as the floating nuclear plants are  
20 concerned, that have nothing to do with land-  
21 based plants. You yourself, and if you would  
22 comment upon the so-called steam explosion,  
23 the turbine missle contention, if you will,  
24 and the adequacy of the liquid generic path-  
25 way; I think these are issues that are of

1           particular importance as far as not only we  
2         here parochially are concerned but also as far  
3         as the State is concerned. And incidentally in  
4         keeping with this, and he's not testifying  
5         today, and I think that Daryl probably would  
6         have made comment on this, certainly, that it  
7         is Carl Valore who has been the intervenor for  
8         the Atlantic City-Atlantic County Environmental  
9         Agency is bringing suit, actually now in view  
10        of what has happened in North Carolina with  
11        the Price Anderson Act being declared unconsti-  
12        tutional. So on the part of the County, in  
13        this morning's paper, Carl Valore, Jr. stated  
14        he was going to be bringing suit in Federal  
15        court on that same issue. So, therefore, as  
16        far as the liability is concerned, as far as  
17        the insurance is concerned, this basically  
18        another factor. But, Glen, may I ask what  
19        progress you have made with the NRC concerning  
20        the steam explosion?

21           DR. PAULSON: Not enough, yet, Joe.  
22         For over a year and a half we've been demanding  
23         of the NRC explicit attention to the likeli-  
24         hood and consequences of a catastrophic  
25         accident in the floating nuclear plant. Three

1 years ago, in fact, it was three years ago  
2 last month, and this was under the previous  
3 administration in deed, the State of New  
4 Jersey petitioned that such analyses be made  
5 not only for the floating nuclear plant but  
6 for any new type of reactor or any new type  
7 of location for an existing type of reactor.  
8 That petition, over three years old now, has  
9 not been acted upon except to file it in the  
10 docket room at the AEC at that time, which  
11 has continued into the NRC. Our repeated  
12 letters, meetings with the NRC Commissioners  
13 themselves, technical discussions over the  
14 table with the staff, phone urgings and the  
15 like have not resulted in that analysis yet.  
16 Within the last three weeks roughly, the NRC  
17 sent a delegation headed by the Director of  
18 Licensing, Mr. Rucci, and their technical  
19 people, to meet with the delegation from the  
20 State including the DEP, the Public Utilities  
21 Commission and the Public Advocate, one of  
22 the major actors in the formal licensing  
23 proceedings, as you know, with the Utilities  
24 in attendance, to state again our concern.  
25 And we received once again from them the

1 promise that they would look into this issue. Now  
2 in this regard, given the history -- I'm from  
3 Missouri, not New Jersey -- I need to be  
4 shown that they're going to do this and that  
5 they're going to do it thoroughly and well and  
6 in writing so that we and others can see it.  
7 We do not have yet the kind of written commit-  
8 ment as a result of that meeting that we have  
9 demanded from the NRC.

10 SENATOR McGAHN: Thank you very much.  
11 I have no further questions.

12 SENATOR RUSSO: Thank you, Doctor.  
13 Excuse me, Joe, we have one accommodation to  
14 make. The Chairman of the Assembly Energy  
15 and Environment Committee, Donald Stewart will  
16 now testify at this time, under threat of  
17 bottling up all of our legislation that we  
18 sent over to our counterpart committee in the  
19 Assembly. Assemblyman Stewart?

20 MR. STEWART: Thank you very much. I'm  
21 Assemblyman Don Steward representing Salem  
22 and Gloucester Counties. I'm here serving two  
23 purposes; one as Chairman of the Assembly  
24 Committee and secondly as a legislator repre-  
25 senting a district that has considerable

1 amount of energy facilities located in it,  
2 both nuclear and oil refineries and the like.  
3 I have a very brief sketch of some notes that  
4 I've made that I'd like to touch on on behalf  
5 of some of the constituents that I have and  
6 also on behalf of some of the members of the  
7 Assembly and some of the discussions that  
8 we've had prior to this hearing. I think the  
9 main concern -- first of all, let me say that  
10 in response to the Senator's question, I do  
11 think that there is a need for legislation  
12 similar to this, if not this legislation. And  
13 that yes, I do think there are some things  
14 wrong with these particular bills that we can  
15 clean up and possibly amend and come up with  
16 some meaningful legislation for the State of  
17 New Jersey. I know I, for one, am getting  
18 tired of having to constantly say to my  
19 constituents that New Jersey has nothing to say  
20 about nuclear plants, for instance. New Jersey  
21 has no say in many of the aspects of nuclear  
22 plants, and I think it's high time that we do  
23 become involved in this issue, and that this  
24 Energy Facility Agency, I think, is a giant  
25 step in the right direction with some

1           modifications. S-1407, I think is the main  
2           concern that I have. I'm also, obviously,  
3           concerned with S-1494. I'm not crazy about  
4           any legislation that establishes an absolute  
5           ban. After listening to Dr. Paulson, some of  
6           my fears are alleviated slightly on that issue.  
7           But I would think that that particular type of  
8           legislation would not be in the best interests  
9           of the State of New Jersey, especially if we  
10          were to enact maybe these two companion bills  
11          and to amend them to cover some of the points  
12          that we're interested in. S-1721 I think  
13          also can be adapted so that we can find it  
14          livable in the State of New Jersey. Let's  
15          get to the bill that I think is the -- well,  
16          first let me touch on a few points that I  
17          think are the good points of the legislation,  
18          and that's in 1494. In light of some of the  
19          problems that we've had as far as energy is  
20          concerned in this State over the last several  
21          years, especially the last year, I think any  
22          outright ban has to put a little bit of fear  
23          in the hearts of most legislators. I think  
24          we have to leave our options open in the State  
25          of New Jersey. There are some very, very good

1 points in that bill; the fact that the State  
2 of New Jersey would become involved in evacuation plans,  
3 the fact that the State of New Jersey would be-  
4 come involved in the establishment of safety  
5 systems, the fact that the State of New Jersey  
6 would have to be satisfied that the disposal  
7 of radioactive waste I think is a very, very  
8 positive approach, and the fact that New Jersey  
9 would want a complex study to determine whether  
10 nuclear energy is best for our future is  
11 something that we should have been doing a long  
12 time ago.

13 I think 1721 has some of the same good  
14 points and I also favor strongly the legislative  
15 oversite provisions that you've established in  
16 that bill. It seems to me to be a much more  
17 realistic approach and I think then 1494 and  
18 the one that I think with some modification  
19 would be an asset to our State. But 1407, in  
20 general, as I'm sure you're aware and everyone  
21 in the room is aware, deals with all energy  
22 facilities. And if I have one major objection  
23 and if I've talked to people in my area and in  
24 the legislature about one major objection it's  
25 the basic philosophy of giving that energy

1 Facility Agency the overall power to site these  
2 energy facilities. As I said earlier, coming  
3 from an area that has several different types  
4 of energy facilities, I would not look too  
5 favorably nor do I think my constituents  
6 would look too favorably, upon a State Board  
7 indicating to that constituency where and when  
8 a future energy facility might be established  
9 in their particular geographic area. There  
10 are many, many good points to 1407; but  
11 proposals that the DEP establish an energy  
12 site list is something we should have, especially  
13 we, as legislators, should have. I feel that  
14 the idea to involve the PUC with the DEP is  
15 a laudable plan and the idea of coming up in  
16 Section 15 of a State plan dealing with  
17 environmental and economic needs is something  
18 that we need. And by the way as a positive  
19 suggesting, reading through the bill I notice  
20 that we are constantly concerned with the  
21 environmental impact of many of the rules and  
22 regulations. One of my suggestions that I  
23 would have is that you also include in that  
24 any economic impacts that might be affected by  
25 the placement or the lack of placement of the

1 future energy facilities. Again, I am tremen-  
2 dously pleased with the legislative oversite  
3 provisions of the bill. This is something  
4 that is long overdue in New Jersey, and I  
5 applaud the sponsor for including this provision  
6 in the legislation. It's about time that we  
7 in the legislature started to have an active  
8 part, I think, in many of the rules and regu-  
9 lations that are being promulgated around us.

10 Another suggestion dealing with, in  
11 particular, with nuclear facilities for such  
12 an energy facility or Energy Facility Agency  
13 would be to try and come up with some sort of  
14 a standardization of design of facilities. In  
15 some testimony that I was mailed it was pointed  
16 out to me that in other countries it takes  
17 three to four years to build a nuclear facility,  
18 for instance, where in New Jersey it's taking  
19 over eleven years to do the same thing. And that  
20 evidently some countries have had tremendous  
21 success in the standardization of design of  
22 those facilities. The problem, as I pointed  
23 out, is I object to State control of the siting  
24 of these facilities. I objected to that same  
25 philosophy in CAFRA. I pointed out at that

1 time that I felt that the regional approach  
2 was the way to go, that there's no reason why  
3 New Jersey could not be set up into energy  
4 regions, for instance, under this bill or  
5 under the CAFRA law which is already into  
6 effect. There's no reason why that particular  
7 law could not still be amended to set the  
8 State up into regions where the local people  
9 would have some input into decisions that are  
10 going to be made.

11 SENATOR RUSSO: Don, can I interrupt  
12 you at that point --

13 MR. STEWART: Yes, sir.

14 SENATOR RUSSO: -- and ask a question,  
15 because I think you've really hit what I  
16 consider the nub of the problem. When you say  
17 regions, you mean regions within the State,  
18 of course?

19 MR. STEWART: Within the State, yes.

20 SENATOR RUSSO: Who, though, would make  
21 the final determination as to siting; would it  
22 be a State agency or would it be some local  
23 group?

24 MR. STEWART: When I first went to  
25 Trenton, I had the old home rule philosophy

1           that every local township be able to decide  
2           its own fate. I think, having served six  
3           years in the legislature, that I've mellowed  
4           on that philosophy. But I still don't believe  
5           that Commissioner Bardin in this case should  
6           have that overall right either. And there  
7           has to be -- I see no reason why a region  
8           composing of, let's say, Salem, Gloucester,  
9           Cumberland, Atlantic and Cape May Counties  
10          could not have the same powers that this  
11          particular Board that you're setting up has  
12          and has several of those regions across the  
13          State.

14           SENATOR RUSSO: It sort of seems to  
15          be that you're suggesting a solution analogous  
16          to the Pinelands Environmental Council where  
17          you have a local agency that crosses municipal  
18          lines making the determination, as distinguished  
19          from a State agency.

20           MR. STEWART: Yes.

21           SENATOR RUSSO: Would that be basically --

22           MR. STEWART: I'm not familiar with  
23          the Pinelands setup, but the regional approach  
24          is the concept that I'm speaking of, yes.

25           SENATOR RUSSO: You would then create

1           a certain number of members of a particular  
2           agency that would be a regional agency, say,  
3           five southern counties that you point out --

4           MR. STEWART: And these members would  
5           be residents of the area that is affected.  
6           You wouldn't have five residents of Perth  
7           Amboy telling Lower Alloway Creek or Cape May  
8           that they will or will not have a major  
9           energy facility.

10          SENATOR RUSSO: Instead of having  
11          five residents of Perth Amboy, you'd have five  
12          residents of a region in southern New Jersey?

13          MR. STEWART: Yes.

14          SENATOR RUSSO: And you think -- using  
15          the Perth Amboy analogy only for that illustra-  
16          tion, because I don't think it's appropriate --  
17          you feel then that to handle a matter as  
18          broad as this energy siting, nuclear plants and  
19          so forth, the power ought to be given then to  
20          local groups and not in any manner in any  
21          portion to the State; is this --

22          MR. STEWART: As far as the siting is  
23          concerned, yes. The way this bill is written,  
24          the overall powers that this EFA would have I  
25          think are too broad. Those same powers given

1       on a regional area I don't think would be quite  
2       so earthshattering.

3             SEANTOR RUSSO: Well, would they still  
4       be somewhat earthshattering?

5             MR. STEWART: Yes, they would. I'm  
6       going to touch on some of those points here in  
7       a few seconds.

8             SENATOR RUSSO: I don't mean to  
9       disjoint your representation. I just thought  
10      I ought to interrupt you at that point to  
11      raise that issue. I'll hold any further  
12      questions on that until you're finished.

13            MR. STEWART: Well, I touched on the --  
14      as far as energy facilities in general, I  
15      think we ought to go regional, especially when  
16      we're talking about the nuclear installations.  
17      One of the thoughts that has crossed my mind  
18      is the possibility of a provision either within  
19      the region or within your State plan, and I  
20      prefer within a region, that an area of the  
21      State or region of the State that already has  
22      one or more nuclear facilities, for instance,  
23      would not be subject to this mandated provision  
24      that they shall take three or four more or  
25      one or two more nuclear facilities. It's very

1           obvious to me that if we're going to have --  
2           and I just used nuclear facilities because  
3           that's a part of the bill -- but if we're going  
4           to have nuclear facilities or oil refineries  
5           in the State of New Jersey, the place they're  
6           going to be, I would assume, is southern New  
7           Jersey. That's where the open spaces are and  
8           that's where the low population of people  
9           reside, and that's where I would assume, if I'm  
10          looking ahead, a Board that we're setting up  
11          here would probably site most of these  
12          facilities. In many of these sections, in one  
13          of the sections of the State that I represent,  
14          Salem County, we already have the possibility --  
15          well, we're going to have, it appears, four  
16          nuclear facilities.

17           I certainly don't think it would be  
18          a fair approach to take to allow a State Board  
19          such as you're proposing here to say to that  
20          area of the State you'll also have two more  
21          or one more nuclear facility if that local  
22          area, that county of the State, does not  
23          favor that proposal, especially when there  
24          are other sections of the State that do not  
25          have those facilities.

1                   And that really was the other suggestion  
2                   that I wanted to make. Even on a regional  
3                   basis, I think that is something that we  
4                   should keep in mind. There are sections of  
5                   the State, and as I say, I represent one right  
6                   now, and I think you do, too, Mr. Chairman, that  
7                   are already doing their fair share as far as  
8                   supplying energy for the State of New Jersey.  
9                   And to set up a State Board that would be able  
10                  to mandate further on them I think is not the  
11                  way we should be going. Even with the legis-  
12                  lative oversite I don't see a legislator from  
13                  Salem or Ocean County, for instance, to be  
14                  able to convince the other 120 members of the  
15                  legislature that Salem County, for instance,  
16                  should not have two more nuclear reactors,  
17                  when it got down to the bare facts. So I  
18                  really feel that this is something that you're  
19                  going to have to consider in your Committee,  
20                  and when it comes to the Assembly it's a  
21                  problem we're going to have to address ourselves  
22                  to. I don't know the exact terminology we can  
23                  use. I don't know how other States do it. I  
24                  would hope that a regional approach could be  
25                  tried, and I would hope that we could take the

1 suggestion that I'm throwing out here and  
2 possibly refine it through the staff and to  
3 think of some way to consider these areas of  
4 the State that already have many energy  
5 facilities. I think I've touched on through  
6 your questions most of the things that I wanted  
7 to discuss. If you have any further questions,  
8 I'll be glad to discuss them. I would like  
9 to congratulate the Committee and also the  
10 sponsors of the bills for beginning what I  
11 think is something New Jersey should have been  
12 in a long time ago and something that I hope  
13 we'll be able to have a meeting of the minds  
14 and come up with a meaningful energy program  
15 before it's too late in New Jersey.

16 SENATOR RUSSO: Thank you, Don.

17 Questions, gentlemen?

18 SENATOR McGAHN: Don, currently DEP  
19 under the CAFRA Act, of course, does have the  
20 right of reviewing, approving with certain  
21 conditions as far as energy related facilities  
22 are concerned within the CAFRA zone. How-  
23 ever, there's no provisions for any oversite  
24 as far as any of the other areas in the State  
25 are concerned. And basically, this is one of

1 the reasons why the bill in the form it was  
2 drafted has been introduced. I can see it's  
3 going to require a certain amount of markup if  
4 the bill is going to go anyplace at all. But  
5 again, what we are concerned with here is the  
6 State energy policy and certainly in not  
7 preempting the local responsibility in a  
8 situation like this. But nonetheless it's a  
9 very difficult thing with the size of the  
10 State of New Jersey and with the division  
11 within the State itself geographically and as  
12 far as its custom and as far as culture and  
13 quality is concerned to try to get a consensus  
14 of opinion on any particular thing. I think,  
15 first of all, that the decision that has to be  
16 made is how much energy or energy-related  
17 facilities are necessary within the State.  
18 This is the baseline question. What type, and  
19 very frankly, nobody wants something in their  
20 own backyard. I think Lacey Township probably  
21 is a little unique. And while we're speaking  
22 about this, it is true that Senator Russo does  
23 represent Lacey Township; so that consequently,  
24 I mean in that respect I think that he, again,  
25 is looking at this thing also from a broad,

1           objective viewpoint. But we must, therefore,  
2           also make a prediction as far as the future is  
3           concerned; what do we expect as far as New  
4           Jersey is concerned, as far as the world is  
5           concerned. Can we keep energy requirements  
6           down? Can we have conservation in other areas?  
7           There's nothing, frankly, that precludes  
8           conservation or other measures. There's nothing  
9           here that precludes total energy systems.  
10          Frankly, part of the provisions for the State  
11          Development Act could be enacted from this as  
12          far as total energy systems are concerned,  
13          cogeneration of power and various other units.  
14          We could simply make provisions as far as it's  
15          concerned here and this would not apply to any  
16          plans over 1,000 kilowatts -- or under 1,000  
17          kilowatts as far as generation is concerned,  
18          not applied to municipal plants, for example,  
19          which, to the best of my knowledge, is only  
20          one. But I think, again, it is a very diffi-  
21          cult thing as we envision this to do this  
22          primarily on a regional basis. New York State  
23          has an energy siting plan. California has a  
24          siting plan which is statewide in application.  
25          And this is what we were attempting basically

1 to do. Certainly no area, no county should be  
2 forced to accept something on land that's  
3 against it. But broad policy decisions must  
4 be made and the decision is a political decision.  
5 I think whatever it is it has to be safe. I  
6 think unfortunately a lot of concentration was  
7 given simply toward nuclear generating plants  
8 on this, and this certainly was not the intent  
9 on which this was introduced. We were as well  
10 concerned with the related affects of offshore  
11 drilling and pipelines in energy-related  
12 facilities actually being on the coast. At  
13 the present time, the DEP can overrule  
14 localities as far as issuing permits for cer-  
15 tain facilities to be present and this would  
16 be no different basically from the agency.  
17 The composition of the agency is basically not  
18 a question that this can be changed. I think  
19 what we're dealing with here really is a  
20 concept in what would be the best way to imple-  
21 ment this.

22 SENATOR DODD: I'd like to compliment  
23 Don on your comments and the thought that went  
24 through your presentation. I would also like  
25 to remind -- not necessarily you, but the

1           people here today that the agency would  
2           consist of the State Treasurer, the President  
3           of the Board of Public Utilities, our Commissioner  
4           of Community Affairs, the Commissioner of  
5           Environmental Protection, the Commissioner of  
6           Labor and Industry and six citizens appointed  
7           by the Governor. Now, that is a pretty broad  
8           based -- and you can't in any way, shape or  
9           form say that it's weighted. We're looking  
10          again for a twenty-five-year master plan and  
11          it is requiring public hearings. It must be  
12          passed by both houses of the legislature or  
13          be rejected. Any modifications must have  
14          public hearings on each change in the provisions,  
15          on each specific site that would be projected.  
16          We tried to build in as many checks and  
17          balances, again, for local protection and we've  
18          built in a provision where such approval, power,  
19          however, to the greatest extent possible be  
20          subject to the provisions of the Wetlands Act  
21          and CAFRA. Now, this Act is not written in  
22          stone. It does come before your committee and  
23          we would expect some changes, of course, and  
24          we would welcome your input. Thank you.

25           MR. STEWART: Thank you.

1 SENATOR RUSSO: Thank you, Donald.

2 Freeholder Hazel Gluck of Ocean County.

3 MS. GLUCK: Good morning, gentlemen.

4 My name is Hazel S. Gluck. I'm Freeholder  
5 from Ocean County. I am here this morning to  
6 relay to the Committee the concerns of the  
7 Ocean County Board of Chosen Freeholders  
8 regarding Senate Bill 1407, the State Energy  
9 Facility Agency Act, and its supplement Senate  
10 Bill 1721.

11 The Board of Freeholders agrees that  
12 there is a very real and timely need for a  
13 State, as well as a Federal, policy on energy  
14 which must be implemented based on responsible  
15 and responsive planning. Maybe that answers  
16 your question right off the bat, John.

17 SENATOR RUSSO: Okay.

18 MS. GLUCK: We would like to offer  
19 constructive criticism and suggestions to  
20 modify these bills to reflect our concerns.

21 I would like to first address our  
22 concerns and recommendations on Senate Bill  
23 1407. Paragraph 2 of S. 1407 goes to the  
24 heart of our distate for sections of this bill  
25 and I would like to quote from lines 12

1 through 17: "...we have long since lost the  
2 luxury of permitting the proponents of any  
3 policy to pursue their particular ends to the  
4 total exclusion of all others, and have, there-  
5 fore, developed a political and social system  
6 capable of accommodating apparently conflicting  
7 and contradictory ends by encouraging compromise  
8 and reconciliation in the public interest."

9 This portion of the introductory  
10 statement severely contradicts the practical  
11 effect of the bill, which is the usurpation of  
12 municipal and county zoning and planning powers  
13 with regard to the siting of energy and energy  
14 related facilities. Paragraph 21 of the bill  
15 invests the proposed State Energy Siting  
16 Agency with the power of eminent domain for  
17 acquiring any property required for energy  
18 facilities and surrounding buffer zones.  
19 Paragraph 23 specifically excludes energy  
20 facilities from local zoning and planning  
21 controls, while Paragraph 30 divests all other  
22 State agencies, counties, municipalities and  
23 instrumentalities of the State of their  
24 approval, permit and certification powers with  
25 regard to energy facilities.

1                   The State Legislature, if it approves  
2 this bill as written, will be taking the luxury  
3 of permitting the proponents of a particular  
4 planning policy to pursue their particular  
5 ends to the exclusion of local government  
6 interests and desires. Our comments and con-  
7 cerns are directed to this political system  
8 which, according to Paragraph 2, is capable  
9 of accommodating and resolving these conflicts.  
10 As this bill is now written the proposed  
11 Superagency will accommodate local interest  
12 and input as indirectly as possible through  
13 representation in the agency by the Commissioners  
14 of Community Affairs, Environmental Protection,  
15 Labor and Industry and six persons, appointed  
16 by the Governor, "who shall represent the  
17 public interest". Direct local input must  
18 come through these existing bureaucratic layers  
19 and through public hearings during the site  
20 selection process, as for example, through the  
21 Department of Environmental Protection, Office  
22 of Coastal Zone Management, with which Ocean  
23 and other counties are now working under an  
24 energy facilities planning grant. However,  
25 there are no guarantees in this bill that

1           that these communication links will remain open  
2           and be respected. Previous experience with the  
3           Governor's office on the Outer Continental  
4           Shelf notification system gives ample evidence  
5           that local government interests are not taken  
6           seriously.

7           Paragraph 35 of the proposed act  
8           disclaims any intention of impairing the force  
9           and effect of the 1970 Wetlands Act or the CAFRA  
10          Act, but S. 1407 also gives the proposed Energy  
11          Siting Agency the power to issue single agency  
12          conclusive approval concerning the siting of  
13          energy facilities. The final paragraph of the  
14          Statement attached to this bill suggests that,  
15          in fact, changes in the Wetlands and CAFRA  
16          Acts may be required or are possible for the  
17          sake of conformity with S. 1407. This bill  
18          as written simply does not provide for any  
19          local review powers early in the siting  
20          process that we believe are essential to pre-  
21          serve. This proposal leaves too much leeway  
22          for shutting off any areas of local input  
23          which currently exist. The bill rests on the  
24          assumption that State and local communication,  
25          cooperation, and coordination is now adequate;

1 based on past experience -- this is a false  
2 assumption. We cannot expect S. 1407 to be  
3 the remedy for this inadequate communication.  
4 The Committee must be aware, however, that  
5 State and local coordination could be better.  
6 There is no comparison between the power of  
7 the energy industry in legislative lobbying  
8 in its own behalf and the spirited, but often  
9 disunified, efforts of citizens' groups and  
10 local government. We do not want S. 1407 to  
11 close off the access local government now has  
12 to the State. We do want to preserve existing  
13 municipal veto powers in the area of land use  
14 and facility planning.

15 A second area of concern is the funding  
16 of this proposed agency. As it now stands,  
17 the agency would be established in the  
18 Department of the State Treasurer with a one-  
19 time appropriation of \$250,000 to defray the  
20 costs of the agency's studies and plans.  
21 Thus, this agency and its future are totally  
22 dependent upon the continuing support of the  
23 New Jersey taxpayer. This initial funding  
24 arrangement is not unlike that of the Pine-  
25 lands Environmental Council. Should the

1 State Legislature determine at some future date  
2 that it does not wish to support the energy  
3 agency, there does not appear to be any  
4 mechanism for keeping the agency in operation.  
5 Under S. 1407 all employees would be appointed  
6 and not subject to Civil Service requirements.  
7 This proposed method of staffing would provide  
8 for sanctioned political patronage.

9 Governor Byrne, on March 21 of this year,  
10 conditionally vetoed Senate Bill 636, the New  
11 Jersey State Energy Office Act. This bill  
12 proposed the establishment of a State Energy  
13 Office to develop a broad State policy, rather  
14 than a planning mechanism, for energy. The  
15 significance of this bill and the Governor's  
16 conditional veto lies in the fact that that  
17 bill also would have created an agency dependent  
18 upon budgetary support through taxation. The  
19 bill was vetoed primarily because of this  
20 reason. Governor Byrne has requested that the  
21 bill be revised to place the State Energy  
22 Office in the Department of Public Utilities  
23 where its operations could be supported by  
24 assessments normally made against the State's  
25 public utilities by the PUC. Employees of

1           this energy policy office also would be  
2           required to be appointed subject to the pro-  
3           visions of Civil Service regulations. We  
4           strongly urge that S. 1407 be amended to pro-  
5           vide for both a more stable and continuous  
6           funding mechanism and for Civil Service  
7           appointment of employees of the Energy Facility  
8           Planning Agency.

9           A third concern is one of the continued  
10          expansion of State land use control and regu-  
11          latory bureaucracy with which the Ocean County  
12          Board of Freeholders has had to deal more and  
13          more frequently. The Office of Coastal Zone  
14          Management, for example, has proposed expanding  
15          the area under DEP jurisdiction, which would  
16          result in strict development controls being  
17          placed on more and more of Ocean County. At  
18          the same time, the Department of Environmental  
19          Protection has proposed extremely strict  
20          water quality standards for the New Jersey  
21          Pine Barrens. Ocean County presently contains  
22          a major portion of that area. At a recent  
23          public hearing on these proposed standards we  
24          pointed out the severe restrictions that the  
25          standards would place on future growth in the

1                   County as a tradeoff for future water supplies  
2                   with an implication by the Governor that such  
3                   waters were needed for northern New Jersey.  
4                   The Department of Environmental Protection,  
5                   pursuant to CAFRA, is required in Paragraph  
6                   14 of S. 1407 to provide the Energy Facility  
7                   Agency with an identification of appropriate  
8                   locations for energy and energy related facili-  
9                   ties within the Coastal Zone. At a hearing  
10                  before the New Jersey Senate Committee on  
11                  Agriculture, Energy, and the Environment in  
12                  March of 1976, we noted that no other county  
13                  in the United States is facing the combination  
14                  of energy proposals that we are. Land-based  
15                  nuclear, offshore nuclear, nuclear cluster,  
16                  energy parks and Outer Continental Shelf oil  
17                  and gas. This is what Ocean County is facing  
18                  now.

19                  I will not go into, in the interest of  
20                  time, Senate Bill 1721 and 1494. We feel that  
21                  with some revisions we could support these  
22                  bills. Rather than simply to pick apart the --  
23                  let me say this, I think, Senator McGahn, you  
24                  mentioned the intent of the bills. Now, the  
25                  intent of the bills have come to our attention.

1           that sometimes they are not what is promulgated  
2           in the rules and regulations of the bill. We  
3           would like to see the intent of the bills  
4           spelled out. We do not want to see government  
5           by administrative rules and regulations. We  
6           are tried of having legislators come to us and  
7           say yes, we voted for that bill, but that was  
8           not the intent of the bill, and when the rules  
9           and regs have been written, the intent seems  
10          to have been obviated or changed somehow. So  
11          while you say the intent of the bill is not  
12          to negate any local or regional input, it  
13          doesn't read that way. It could very well  
14          happen that under the rules and regulations  
15          promulgated it could close down these avenues  
16          of communication within the region. And  
17          rather than just pick apart these bills, the  
18          Ocean County Board of Freeholders would like  
19          to recommend that the State Legislature take  
20          all four of the bills, which includes 1407,  
21          1721, 636 and 1494 back to the legal drafting  
22          boards and begin to think more definitely of  
23          the differences between the development of a  
24          State energy policy and the development of  
25          State super planning agencies. There are clear

1 conflicts among these four bills. However, they  
2 are all aimed toward the worthy objective of  
3 establishing a realistic and pragmatic role  
4 for the State of New Jersey in energy policy  
5 planning and implementation. We fully support  
6 the State in its motivation to achieve this  
7 objective, but we seriously question the  
8 means. I must emphasize that the opportunities  
9 for county and municipal government input must  
10 be preserved in the spirit of intergovernmental  
11 coordination and cooperation and meaningful  
12 citizen input. It is becoming increasing  
13 apparent that the State of New Jersey is  
14 initiating a policy of no growth in southern  
15 New Jersey. So that this area of the State  
16 can provide for both the water needs of North  
17 Jersey and the energy needs of perhaps even  
18 the northeastern grid of the United States.  
19 During the past five years the five urban  
20 counties of northern New Jersey lost more than  
21 135 residents. Conversely, Ocean County had  
22 a 50% increase in population and a net growth  
23 of more than 88,000 residents. The major  
24 needs for future water and energy supplies for  
25 the residents of New Jersey is in southern New

1 Jersey and not northern New Jersey. We in  
2 Ocean County simply will not stand and watch  
3 the State Legislature and State Departments  
4 usurp local planning and zoning policies,  
5 whether it be through administrative or statu-  
6 tory methods at our own expense and the expense  
7 of our needs. Ocean County supports that  
8 portion of the introductory statement to S 1407  
9 which states that the myth of inherent incompati-  
10 bility between economic development, environ-  
11 mental quality is just that, a myth. However,  
12 a statutory and administrative actions of the  
13 State sited in the above testimony that I've  
14 just given are taking away the local government  
15 privilege or the regional privilege of deter-  
16 mining where and what kind of economic  
17 development will occur and how and to what  
18 extent environmental quality will be defined  
19 and traded off for economic development.  
20 The State Energy Facility Agency Act, the  
21 Superagency, is just not acceptable. It could  
22 be an excellent example of the public be  
23 damned. And as we have stated on many previous  
24 occasions, the Ocean County Board of Freeholders  
25 will not support and will continue to oppose

1           this kind of policy by the State of New Jersey.  
2           Thank you.

3           SENATOR RUSSO: Hazel, just a couple  
4           of questions not directed to the merits, but  
5           I want to clarify a couple of things I said  
6           before I turned over the questioning to my  
7           colleagues. You referred to a State of New  
8           Jersey policy of no growth. Now I think we  
9           ought to be very careful, that we don't  
10          confuse perhaps a Governor's suggestion, a  
11          Commissioner's suggestion or legislative bill  
12          with a State policy. There are a lot of us  
13          that serve in State government that are part  
14          of the State of New Jersey in that regard  
15          you don't show those concepts, who perhaps  
16          agree with you. So I think what we ought to  
17          do is refer to them as a proposal by so and  
18          so, be he Commissioner, Governor, Senator,  
19          Assemblyman, or whoever he may be, but not a  
20          State policy. I think it's wrong to suggest  
21          that there is a determined policy on the  
22          State of New Jersey to do such and such to  
23          Ocean County. There may be some who feel it  
24          should be done. I don't share it and I don't  
25          intend to let it happen, as you don't either.

1 MS. GLUCK: Good.

2 SENATOR RUSSO: The second point would  
3 be I think we have to be -- and I'm sure you  
4 didn't mean this, and I want to mention it so  
5 we can clarify it to -- I know you to be a  
6 responsible public official, not a 1920's  
7 isolationist, who says that the people in North  
8 Jersey be damned; we'll protect Ocean County;  
9 of course not. You and I both agree that if  
10 that water, for example, under the Pine Barrens  
11 were necessary, were necessary to quench the  
12 thirst of people in Newark or Jersey City,  
13 they're human beings. We would both share  
14 that that's what it should be used for. I  
15 think what you meant to say, and correct me if  
16 I'm wrong, is that we ought not to harm Ocean  
17 County for the benefit of any others. We're  
18 all New Jersey, though. We're all human beings  
19 and we've got to protect all of the people.  
20 No one should go hungry or be thirsty if we can  
21 help them, and I'm sure you agree with that.  
22 So with just those two -- and one other final  
23 thing, you mentioned the rules and regulations.  
24 And as you know, that's a pet project of mine  
25 and I agree with you, all too often we pass

1 legislation, and that might be the case here,  
2 where it's passed and then when the rules and  
3 regulations come out, it doesn't even resemble  
4 it. A good illustration recently is the Off-  
5 shore Oil Spill Liability Bill. But fortunately,  
6 that will be changed. But I think that what  
7 you said is so correct and so important that I  
8 do hope as soon as you go back, the Board of  
9 Freeholders will pass a resolution supporting  
10 that bill that I've got pending that will --

11 MS. GLUCK: You don't miss a beat,  
12 John.

13 SENATOR RUSSO: -- that will require  
14 no bill become effective until the rules and  
15 regulations have been adopted. And I'm sure  
16 Senator Dodd and Senator McGahn pledge their  
17 votes affirmatively to that bill when it comes  
18 up.

19 SENATOR DODD: We're the only two not  
20 running for governor, by the way. I'm not  
21 sure about you, Senator McGahn.

22 SENATOR McGAHN: Senator Russo  
23 announced but he hasn't withdrawn that announce-  
24 ment.

25 Hazel, what position has the New Jersey

1                   Association of Chosen Freeholders taken on  
2                   this bill?

3                   MS. GLUCK: They haven't. We gave them  
4                   the bill about a month ago and they have not  
5                   come back with any kind of recommendation.

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SENATOR McGAHN: Thank you. Senator Russo while we're here, has two bills in, as far as Ocean County is concerned that further dilute the effect of CAFRA, as far as Ocean County is concerned; one would be deleting all that area west of the Garden State Parkway and deleting that from CAFRA's jurisdiction, and the second, of course, would be to reduce the number of housing units from fifty to twenty-five --

SENATOR RUSSO: Increase it, twenty-five to fifty.

SENATOR McGAHN: I'm sorry, twenty-five to fifty. I got that wrong. Has the Board of Freeholders of Ocean County taken any position on either of those two bills?

MS. GLUCK: No, we haven't. We don't have copies of those.

SENATOR McGAHN: Thank you.

SENATOR DODD: Madam Freeholder, what exact role do you see the State playing in the State-wide energy plan? Just as an example, to give you a starter, the Garden State Parkway, I think runs through approximately one hundred seventy-five towns in this State from top to

1 bottom. Is there anyone in this room that would  
2 think if it had been up to each municipality  
3 when it was built that it would be built today?

4 MS. GLUCK: Well, I'm not suggesting  
5 and I didn't suggest, Senator Dodd, that the  
6 State did not have a role. Quite to the contrary,  
7 I suggested they do have a role. What I'm  
8 suggesting is that they alone do not have a role  
9 in this. That we have to have some say in our  
10 destiny. Atlantic County or Cape May or Ocean  
11 County may or may not want certain things.  
12 Certain things would be acceptable to Atlantic  
13 that would not be acceptable to Ocean County.  
14 What I'm saying is the State definitely has a  
15 role in this and a tremendous responsibility in  
16 this, and there's no question about it. But we  
17 also should not be shut off from our responsi-  
18 bility on a regional level.

19 SENATOR DODD: Should you have absolute  
20 veto power --

21 MS. GLUCK: Well --

22 SENATOR DODD: --or should every County  
23 have? Or should every municipality have? I  
24 appreciate the way you've couched your presenta-  
25 tion, where it's sort of a constructive criticism,

1           but criticism nonetheless. I'd like you to be  
2           a little bit more constructive in detail and  
3           tell us exactly what you'd expect of us. You see  
4           what we're faced with --

5           MS. GLUCK: Yes, I do.

6           SENATOR DODD: -- of facilitating God  
7           knows how much growth or limiting it, as the  
8           case dictates, but where do we cut it off and  
9           say enough? Now, I have six towns in Essex  
10          County that have been meeting for that many  
11          years to site a solid waste disposal unit.  
12          They've been meeting six years and they come up  
13          with a site every year and everybody votes for  
14          it except the fellow that represents the town  
15          it's going to be placed in. Then it goes on  
16          for the next year. This will go on, I'm sure,  
17          for the next twenty years.

18           MS. GLUCK: It may be that on a  
19          regional basis we may have to make some  
20          decisions and then perhaps take those decisions  
21          to the State. In other words, what I'm saying  
22          to you is that rather than have the State telling  
23          everybody in southern Jersey where and when and  
24          how, we should have some kind of input into  
25          our own destiny.

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2 SENATOR DODD: Madam Freeholder, again,  
3 we're not telling anybody. We don't know what  
4 is needed at this point --

5 MS. GLUCK: You're not, but the  
6 Commission will.

7 SENATOR DODD: -- and we're hoping the  
8 Commission could outline several sites, perhaps  
9 not all in Ocean County, as you fear. Perhaps  
10 there will be other sites we're trying to  
11 identify it, and we do not have those  
12 capabilities today.

13 MS. GLUCK: All I'm saying, Senator --

14 SENATOR DODD: If you can address  
15 yourself as to how we can rework the bill to  
16 every County's satisfaction and to every  
17 municipality's satisfaction --

18 MS. GLUCK: Then what are you saying,  
19 that I shouldn't have come here today to discuss  
20 my County's concern because we can't rework it  
21 to twenty-one Counties' satisfaction?

22 SENATOR RUSSO: You better not say  
23 that, Hazel.

24 SENATOR DODD: That's what we have to  
25 deal with.

5

1 MS. GLUCK: I understand. I appreciate  
2 your problems and I do not have all the answers.  
3 Maybe if I did, I would be sitting where you are,  
4 if I had them all. But while I may not have all  
5 the answers right now, I still feel the answer  
6 is not to negate all regional input into this.  
7 I understand your intentions, and Dr. McGahn  
8 has explained that that was not the intent of  
9 the bill, yet if you read the legislation, it  
10 comes across that way. If you leave it to an  
11 autonomous Commission to interpret this and --  
12 forgive me, John -- two attorneys to interpret  
13 this, that the local input will be almost  
14 negligible. I can almost bet my bottom dollar  
15 on this.

16 SENATOR DODD: Any final action would  
17 have to be passed by the legislature. It would  
18 have to be enacted into law, as any law would.  
19 That is another safeguard. I don't know if we  
20 can say that for many things in the planning of  
21 this State. I don't mean to criticize you --

22 MS. GLUCK: That's okay.

23 SENATOR DODD: -- but we deal in  
24 precise legal language that has commas and a  
25

beginning and starting point.

MS. GLUCK: Yes, I know. That's part  
of the problem for us lay people --

SENATOR DODD: You have generalized  
all the problems without giving specific solutions.

MS. GLUCK: Senator, it may be  
specific legalies, but to lay people, they don't  
know what specific legalies means. And when you  
get two attorneys together, the interpretations  
can be different and usually decided in a court  
of law. I don't want to get into semantics.

SENATOR DODD: You are like myself,  
Madam, in that you represent; you're an elected  
official.

MS. GLUCK: Yes.

SENATOR DODD: And you, to the best  
of your ability, must translate what we're  
attempting to do, as we must.

MS. GLUCK: Right.

SENATOR DODD: Now, you can't say I'm  
just simple folks when it's convenient. You  
are elected --

MS. GLUCK: I don't consider myself  
simple. I just said I'm not an attorney.

MR. REIFER: Mrs. Gluck, before asking

1 my questions, I'd like to remind you that I'm  
2 only an employee of the legislature and, therefore,  
3 I don't object to your being very rough with  
4 these Senators. They're capable of taking care  
5 of themselves. But I'm not. So be gentle in  
6 your responses. I got the general tone that you  
7 weren't terribly happy with Senate Bill 1407 and  
8 largely for three reasons; the local input,  
9 the cost of the agency which were going to be  
10 imposed on the taxpayers and the over-weaning  
11 and over-powerful role of the State. With  
12 respect to the cost aspect, would you respond  
13 please, to the existence of section 6B of the  
14 bill, which, as you may recall, is the section  
15 that permits the agency to establish a fee  
16 schedule for processing and reviewing applications  
17 and to establish those fees at a rate which would  
18 make the agency self-sustaining and, therefore,  
19 not be a burden upon the taxpayers. Is that an  
20 adequate section to you or is that inadequate?

21 MS. GLUCK: No. I remember the section  
22 you're referring to, and I appreciate that  
23 section. My point, sir, was that the two hundred  
24 fifty thousand dollars -- are you telling me that  
25 you anticipate that these fees from application

1 will carry the entire agency; so, therefore, the  
2 one-time funding of two hundred fifty thousand  
3 dollars would be all that would be needed to  
4 keep it in existence?

5 MR. REIFER: It is the intention of  
6 the legislation that the actual operations of  
7 the agency would be self-sustaining based upon  
8 the fees that would be derived from the people  
9 submitting applications.

10 MS. GLUCK: My concern was that if,  
11 in fact, they weren't, there was only a one-time  
12 funding cost, and, like Pineland's Environmental  
13 Council, if, in fact, the legislature at that  
14 time didn't choose to re-fund it, that the  
15 agency would falter then for lack of monies.  
16 But if, in essence, you feel that this will  
17 cover it, then that takes care of my objection.  
18 I didn't understand that the fees alone would  
19 sustain the agency.

20 SENATOR RUSSO: Mark, before you go  
21 on to your next question, I think we should make  
22 clear that everything is one-time funding. It  
23 isn't as though this bill were being treated  
24 differently. We can't bind future legislatures,  
25 such as the Board of Freeholders can't bind future

1 Boards. You can only fund each year. There is  
2 always somebody who comes along, like I did on  
3 a few things, who says, "Hey, this agency isn't  
4 necessary; let's cut it out, let's not fund it."

5 So it isn't as though we're treating  
6 this -- I say we -- if this passes, we're  
7 treating this agency any different than any other.  
8 You can only fund year by year as part of the  
9 appropriations act.

10 MS. GLUCK: My concern, regardless  
11 of what has transpired here, and I don't think  
12 Senator Dodd appreciates the fact that I really  
13 feel that the State has a role in this.

14 SENATOR DODD: Thank you very much.

15 MS. GLUCK: I said that at the outset.  
16 That was in the first paragraph of my statement,  
17 and I think you misunderstand. My concern about  
18 the funding aspect of the agency was if, in fact,  
19 no matter what form this takes and eventually  
20 we have to have something on the State level,  
21 but I don't think there's any question about  
22 that that the monies, when we all put our heads  
23 together and come up with the best possible  
24 thing, that the monies be there, and that's why  
25 I included that, not realizing that, in fact,

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1 the applications would be substantial enough in  
2 nature to carry on, you know, the employees and  
3 the concept of the agency. I said that right  
4 at the beginning and I meant it.

5 SENATOR DODD: I believe you.

6 MS. GLUCK: It's just that I have  
7 certain reservations about the way it's con-  
8 stituted now.

9 SENATOR RUSSO: Mark, you were  
10 questioning.

11 MR. REIFER: Thank you, sir. Miss  
12 Gluck, with respect to just who should do the  
13 initial plannings for energy facilities, you  
14 used the words "The County and Region." In  
15 your view, is the appropriate planning entity  
16 for energy facilities in New Jersey the County,  
17 or when you say region, do you mean a multi-  
18 county region?

19 MS. GLUCK: Well, in our case, it  
20 certainly could be tri-county. We have, as Mr.  
21 Dodd testified to the tri-county Officer  
22 Development Committee. We do have the three  
23 planning offices involved in that. We do have  
24 expertise that we hire. I think that there is  
25 a lot more expertise at the County level in

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1 planning now than there ever has been, and  
2 certainly I'm not saying do it alone, but can't  
3 we do some of this in concert.

4 MR. REIFER: You are doubtless aware  
5 of the Solid Waste Management Act.

6 MS. GLUCK: Yes.

7 MR. REIFER: Which was enacted in the  
8 legislature in 1975. That Act established  
9 individual counties as planning regions for  
10 Solid Waste Management. If one were to use that  
11 piece of legislation, perhaps as a model and  
12 to designate perhaps regions of counties as the  
13 initial planning entities for energy facility  
14 siting and to require those groups of counties  
15 to come up with an energy facility siting  
16 plan and to submit that plan to the State for  
17 its review, would that be the sort of procedure  
18 which would combine your desire for local input  
19 with the State role in finally approving or  
20 disapproving those plans?

21 MS. GLUCK: Yes, I think it would.

22 MR. REIFER: So you would then support  
23 the planning concept in the Solid Waste Management  
24 Act if it were applied to energy?

25 MS. GLUCK: Yes; yes, I think I would,

1 because I think it would assure one thing, that  
2 we are terribly concerned about and that is  
3 regional -- no matter what the boundaries are.  
4 Could be tri-county or one county input into  
5 the planning of energy facilities in the State.

6 MR. REIFER: Thank you.

7 SENATOR RUSSO: I might say, Hazel,  
8 that I intend to ask the staff to prepare  
9 committee amendments that would incorporate that  
10 concept that Mark Reifer has just referred to  
11 and discuss with you and then to discuss it with  
12 Senator Dodd and Senator McGahn in hopes that  
13 there might be a reasonable compromise. Of  
14 course, I don't know their attitudes with regard  
15 to it, but that's something that we will be  
16 pursuing and I intend to pursue it. And perhaps  
17 as soon as they're prepared, since you've shown  
18 a considerable interest in this, we'll have a  
19 chance to discuss them, you and I, before I  
20 discuss with the sponsors that proposal. It might  
21 be a solution. It still takes away municipal  
22 zoning under that. It still usurps local zoning;  
23 understand that. It still usurps local zoning  
24 completely. It just is instead of to a State  
25 agency a regional agency. But it does violate

1 home rule to a certain extent and I think we have  
2 to accept that.

3 MS. GLUCK: Yes. I think that's true  
4 But it doesn't obviate our responsibility with  
5 our own municipalities either.

6 SENATOR RUSSO: Right; right.

7 SENATOR McGAHN: John, the only  
8 problem here in comparing this with Solid Waste  
9 Disposal is actually the Federal Government's  
10 role in this. The transmission lines are  
11 Interstate Commerce and we're dealing with the  
12 utility, which is actually a tri-State TJM  
13 grid network is not only supplying New Jersey  
14 but supplies Pennsylvania and Maryland as well.  
15 This is further interconnected with the entire  
16 Northeast. So that really under the Federal  
17 Commerce clause, transmission lines are  
18 considered as Interstate Commerce and pre-emption  
19 can be on that particular basis. As far as oil  
20 pipelines are concerned, since actually oil  
21 coming into New Jersey will not be used for  
22 consumption within the State itself, but it will  
23 also be used as far as Interstate Commerce is  
24 concerned. While we may be able to ban the  
25 passage of pipelines through the Riparian Law,

1 if it's declared in the national interest, then  
2 that particular thing may be pre-empted. But  
3 even our Wetlands and our Riparian Rights under  
4 these circumstances. So I think what we're  
5 really dealing with is a situation that is not  
6 comparable with Solid Waste. We're dealing with  
7 a situation that's very, very different. And  
8 certainly as far as coastal zone management is  
9 concerned, once New Jersey has a plan that can  
10 be submitted, as I mentioned before, to the  
11 Secretary of Commerce and is consistent with  
12 the Federal Plan, then possibly under these  
13 circumstances the State may have not necessarily  
14 a right of veto, but certainly it has to be  
15 consistent with the State Plan. Even under  
16 those circumstances, it is my understanding at  
17 the present time, it could be over-ridden by  
18 the Secretary of Commerce. So I think we're  
19 dealing with a situation with a little larger  
20 scope, and this is it. We recognize certain  
21 defects and deficiencies in here. I think  
22 certainly the public input in a local area could  
23 be increased somewhat. The legislative over-  
24 view that we thought were really built in this,  
25 as far as I'm concerned, I thought legislative

15

1 oversight was built in this. Maybe it's not.  
2 But all the recommendations will be taken into  
3 consideration. Thank you.

4 MS. GLUCK: Thank you very much.

5 SENATOR RUSSO: Hazel, Senator Dodd,  
6 Mark, anything further? Thank you, Hazel.

7 Is Commissioner Jacobson here? Anyone  
8 from the PUC on his behalf?

9 Mr. Abrams, Atlantic County Citizens  
10 Council for the Environment. Mr. Abrams, excuse  
11 us just one second.

12 (A short recess is taken.)

13 SENATOR RUSSO: We'll resume the  
14 hearings, and I might suggest that, and  
15 incidentally, Joe, some of the mikes are off  
16 and there's no paper towels in the men's room.  
17 There's 58 witnesses on the list, so I would  
18 like to ask that anyone who has a written state-  
19 ment, please give it to us when you come up and  
20 if you could see fit to summarize the written  
21 statement instead of reading it all in detail,  
22 which really doesn't make sense because we have  
23 them in the records available to us, it would  
24 help. If we get further along in the day and  
25 we've still got 52 to go, we'll just have to

1 impose an arbitrary time limitation and we  
2 don't like to do that. It's not fair to those  
3 who are further down on the list because we didn't  
4 impose it on the earlier ones. But you can help  
5 us an awful lot by not repeating what others have  
6 said. If you have a written statement, summarize  
7 it and perhaps we can move along and accomplish  
8 what we're here for. So we hope you'll assist  
9 and cooperate with us, and we'll proceed now  
10 with Mr. Abrams.

11 MR. ABRAMS: Thank you, Mr. Chairman.

12 I'm Harold Abrams, President of the Atlantic  
13 County Citizens Council on Environment.

14 I thank you for your personal invi-  
15 tation to present my testimony before your  
16 committee, and I wish to commend you for selecting  
17 Atlantic City as the locale for this hearing since  
18 this City, on the threshold of its renaissance,  
19 is so vitally affected by the environmental  
20 impact of any proposed nuclear facility in this  
21 area. It is of paramount importance that any  
22 legislative decisions bearing on any environmental  
23 factors which could possibly disrupt or hinder  
24 the orderly progress in the development of the  
25 economic rebirth of this city and the wide

1 geographic area which will also benefit from  
2 this development be made with utmost caution  
3 and deliberation.

4 In response to your request for  
5 comments on the three Bills under consideration  
6 today, I respectfully offer the following ob-  
7 servations: On S-1407 -- There is not enough con-  
8 sideration given to energy conservation in this  
9 Bill. Conservation should be the main priority in  
10 reducing the wasteful and inefficient use of  
11 energy. In Section 21, which provides sweeping  
12 powers to the proposed agency, there must be more  
13 checks and balances. There should be more  
14 consideration given to regional area controls  
15 as to specific siting of nuclear plants. Counties  
16 could be stripped of the right to accept or  
17 reject power plant siting. Atlantic County has  
18 rejected by referendum the siting of floating  
19 nuclear plants in our area. Section 21 could  
20 negate the will of the people if the powers  
21 assigned to the proposed State Energy Facility  
22 Agency by this Bill become law.

23 In Section 2, line 32, the word for  
24 the first time appears "parks" is used in  
25 referring to a concentrated collection of energy

1 generating facilities. The use of this word is  
2 a misleading euphemism since a park connotes a  
3 tranquil recreational area rather than a poten-  
4 tially hazardous danger zone. And I would suggest  
5 the word "cluster" as a more appropriate term  
6 in describing these types of areas.

7 In Section 2, paragraph e, it appears  
8 that much of this Bill aims to accomplish what  
9 President Carter is doing through the newly  
10 created Federal Energy Office under the direction  
11 of James Schlesinger. And since Federal pre-  
12 emptions could nullify decisions reached by the  
13 proposed state agency, there should be provisions  
14 written into the Bill to account for this.

15 In Section 2, paragraph h, there is  
16 the provision that further research and study  
17 into environmental, social, economic and  
18 technical aspects of energy and energy-related  
19 facilities be carried out. The question arises  
20 here: Hasn't this research been done already  
21 by the N.J. DEP, the Center for Environmental  
22 Studies at Princeton, the Public Advocate,  
23 federal agencies including the General Accounting  
24 office, OTA, EPA, and the Ford Foundation, etc.?  
25 And since this is so, why the additional expense

which would evolve from the duplication of such  
reserach effort.

In Section 4, paragraph b, the membership of the proposed agency is established. And I strongly object to the agency being incorporated into the Department of the Treasury with the Treasurer as chairperson. I suggest that this agency, should the Bill be passed, should be chaired by the N.J. Public Advocate and incorporated into his agency. Thus, the proposed agency would operate as an ombudsman for all the people of New Jersey. Alternatively, should this recommendation not be accepted, then definitely both the Public Advocate and the Attorney General should be members of this Commission. In addition, there should be more than six members of the general public for balance and to give wider geographical representation. The general membership further should be weighted to give preponderance in representation to southern New Jersey, since the proliferation of any nuclear facilities would certainly be restricted to this area of the State. Also, there should be provision in the Bill that no member of the Agency, or any advisor

1 or consultant to the Agency, be an employee of,  
2 hold stock in, or be related to any employee,  
3 officer or stockholder in a utility company or  
4 manufacturer of energy equipment. I also have  
5 reservations about the membership in the proposed  
6 Agency, particularly the inclusion of the  
7 Commissioner of Community Public Affairs and  
8 the Commissioner of Labor and Industry. As an  
9 intervenor before the Nuclear Regulatory  
10 Commission in matters concerning the licensing  
11 of floating nuclear power plants, I have received  
12 and read every document from the NRC to these  
13 agencies requesting comment on various aspects  
14 of the licensing procedures. These agencies,  
15 as well as the PUC, have, in every instance,  
16 either offered no comment or accepted without  
17 a single challenge the NRC's environmental impact  
18 statements and liquid pathway studies required  
19 in both the manufacturing and siting proceedings  
20 currently ongoing in the matters of floating  
21 nuclear power plants. To me, this represents  
22 a flagrant dereliction on the part of these  
23 agencies and disqualifies them from membership  
24 in the proposed State Energy Facility Agency.

25 My final comment on 1407 is directed

1 to this committee in the form of a recommendation.

2 I propose the withdrawal of the Bill and in its  
3 stead I urge you to lead the effort in initiating  
4 the legislation required for special procedures  
5 that will enable the people of New Jersey to be  
6 allowed the right of Referendum which is binding  
7 on the legislature, similar to that already in  
8 effect in California and many other states.

9 This would give the people the right to propose  
10 their own legislation on any subject. The absence  
11 of such a right under New Jersey law shackles  
12 the electorate to the fullest expression of its  
13 will. And any deterrent to the orderly exercise  
14 of the people's rights is contrary to the  
15 principles upon which this nation is founded.

16 My comment on 1721. By itself, this  
17 is a good Bill, although it is not as strong  
18 or as effective as 1494. My main objection to  
19 1721 is that it is tied to 1407 and is emasculated  
20 by it. I would like an explanation of why these  
21 were made companion bills. Why are they not  
22 separate? And if the answer is because of  
23 legislative trade-offs, then I submit that it is  
24 immoral to accept trade-offs on human safety.

25 On the Bill S-1494. I feel this Bill

1       is urgently needed and should be enacted into  
2       law as soon as possible. I cannot believe that  
3       nuclear power is so flawless that we should commit  
4       ourselves today to the pursuit of a technology  
5       lacking time-tested credibility. The inherent  
6       dangers of nuclear power are real and cannot be  
7       ignored. And we cannot continue to accept the  
8       syrupy blandishments of the nuclear industry and  
9       the utilities who tell us, "everything will be  
10      O.K. and all of the controversies will be  
11      resolved." The fact is, that each of the nuclear  
12      plants now being built produces radioactivity  
13      equivalent to one million Hiroshima atom bombs.  
14      The failure to contain just .001% of this waste  
15      could spell doom for our future generations the  
16      world over. We must not limit our concerns  
17      solely to the possibility of catastrophic  
18      accidents such as the partial core-meltdown at  
19      the Browns Ferry, Alabama, plant. It is in-  
20      conceivable to me that the government which is  
21      spending billions of dollars to prevent an  
22      atomic attack on the United States while we  
23      are heavily subsidizing the construction of  
24      nuclear plants near major metropolitan areas --  
25      ready targets for radioactive sabotage by small

groups of terrorists.

The enactment and passage of 1494,  
and its subsequent reassessment, will enable the  
people to make an informed judgment as to whether  
or not to embark on an irreversible commitment  
to nuclear power as a major source of energy. It  
is crucial that the State recognizes the growing  
concern and apprehension of the people on the  
subject of nuclear energy. Every day, more and  
more information is coming to light showing  
that we are unprepared, as a nation, to move as  
fast in this area as we are presently going. We  
need to take the time to do complete studies and  
then, and only then, determine the proper course  
of action without making an irreversible commit-  
ment based on false or unsufficient data.

In just the past few weeks, newspapers  
have carried articles that Sweden is going out  
of the "nuclear age". Sweden has five nuclear  
plants and the newly elected Prime Minister  
has announced that he has appointed a commission  
to best determine how to phase out all of  
Sweden's 5 plants. He is determined to move his  
country away from nuclear power and prefers to  
develop safer alternatives as energy sources

1 and, if need be, revert back to oil and coal.

2 The Prime Minister stated, "If within one year  
3 the problem of safe disposal of radioactive  
4 waste is not solved, I will shut down all of  
5 the country's reactors." He concluded by saying,  
6 "Nuclear power is potentially too dangerous  
7 and problem-laden to live with."

8 Significant, also, is the British  
9 government's rejection of the light water reactor  
10 because of the dangers of rupture of the  
11 pressurized reactor vessel. In West Germany, just  
12 a few weeks ago, the Federal court decided that  
13 construction cannot continue on a controversial  
14 new nuclear power plant until the radioactive  
15 waste problem has been fully resolved. A  
16 suggestion was made during these hearings that  
17 perhaps the waste from West Germany's nuclear  
18 plants could be stored overseas -- possibly in  
19 the United States!

20 Here in the United States, at the  
21 opening of the 95th Congress, legislation was  
22 introduced by Congressman Hamilton Fish of  
23 New York for a nuclear energy Reappraisal Act  
24 of 1977, calling for a 5-year moratorium on the  
25 construction of any nuclear power plants, the

1 study of their feasibility and the determination  
2 of alternate sources of energy. The report  
3 calls for a consideration of the safety and  
4 environmental hazards associated with the entire  
5 nuclear fuel cycle, including, but not limited to,  
6 the significance of frequent malfunctions in  
7 components of emergency core cooling systems, as  
8 evidenced by the abnormal occurrences reported  
9 by the NRC, the six failures of emergency core  
10 cooling systems in semi-scale tests. Joining  
11 Congressman Fish was Peter Rodino of New Jersey  
12 and 20 additional co-sponsors as signers of this  
13 House Bill. President Carter has repeated  
14 his statement several times that "nuclear power  
15 plants should be used only as a last resort and  
16 then only underground." He has further stated  
17 that conversion to coal should be resorted to  
18 wherever possible.

19 And finally, and perhaps most important,  
20 just a couple of days ago, a Federal Judge in  
21 North Carolina struck down the Price-Anderson  
22 Act as an unconstitutional deprivation of  
23 property without due process of law. His  
24 decision bars any limit of atomic liability.  
25 The complainants in the case had argued that in

1           the event of a serious accident at a nuclear  
2           power plant, large amounts of radioactive  
3           materials could be released, causing thousands  
4           of deaths or illnesses and causing human injury  
5           and property losses valued at many times the  
6           \$560 million dollar limit in the law. If so,  
7           they argued, the public would suffer billions of  
8           dollars of damages which the law would arbitrarily  
9           prevent them from ever recovering. This  
10          federal judicial ruling throws the whole issue  
11          of liability open again, at a moment when the  
12          rising construction costs and slower electricity  
13          demands are already causing cancellations of  
14          many previous planned nuclear plants. Faced with  
15          a threat, no matter how remote, of multi-billion  
16          dollar damage claims that could wipe them out,  
17          electric utility companies may surely have to  
18          reconsider their plans.

19           Mr. Chairman, member of the Committee,  
20          that concludes my testimony. I previously spoke  
21          to the Committee for permission for just a  
22          moment to give a testimony for Dr. Willard  
23          Rosenberg, who is Chairman of the Energy Committee.

24           SENATOR RUSSO: Do you have a copy of  
25          it there?

27

1                   MR. ABRAMS: It is just a two-minute  
2 copy there.

3                   SENATOR RUSSO: Please submit it to  
4 the Committee staff and we'll make it part of  
5 the record.

6                   SENATOR McGAHN: Mr. Chairman, if it's  
7 only two minutes, I would ask your indulgence to  
8 permit him to read that statement, since I  
9 happened to work with Dr. Willard Rosenberg and  
10 my life may not be able to get along with if  
11 that's not read.

12                  SENATOR RUSSO: Well, since this is  
13 Atlantic County and the tradition is that the  
14 home Senator buys lunch, I don't want to do  
15 anything to jeopardize that either. If that's  
16 your request, go ahead and read it.

17                  SENATOR McGAHN: John, you're a fine  
18 man. What kind of a sandwich would you like.

19                  MR. ABRAMS: My name is Willard  
20 W. Rosenberg. I am a physician and, for the  
21 past six years, I have studied assiduously the  
22 subject of nuclear fission as an energy source  
23 for the generating of electricity. Also, I  
24 am an intervenor before the U.S. Nuclear  
25 Regulatory Commission in proceedings on the

1 manufacture and siting of floating nuclear power  
2 plants. But foremost, I am an environmentalist  
3 and I subscribe to Thoreau's statement that  
4 "When man forgets he belongs to the environment,  
5 he damages both it and himself."

6 I have two regrets today:

7 1. That I am unable, because of my  
8 work schedule, to appear in person to answer any  
9 questions of the Committee, hear any comments,  
10 or to defend my position against any opposition.

11 2. That I must criticize in public  
12 a Bill which bears the name, as co-author, of  
13 Senator McGahn, my friend and medical colleague  
14 whom I respect and admire for his intelligence,  
15 dedication and compassion.

16 And now to the business at hand: I  
17 have had the opportunity to read the testimony  
18 of Mr. Abrams, which he will present before  
19 this Committee today. I agree fully with his  
20 statements on Bills S-1494 and S-1721. Regarding  
21 Bill S-1407, my opposition is much stronger  
22 than his. I shall limit my presentation to  
23 only one aspect of this Bill although my ob-  
24 jections to it are many.

25 Much prolonged legislation, though

1 it may be cloaked in high-minded words of  
2 purpose and intent, often has an ulterior motive  
3 for its introduction. With this in mind, I  
4 searched the Bill for the "needle in the haystack"  
5 and I think found it embedded in Section 21.

6 Here, the proposed State Energy Facility Agency  
7 is empowered to acquire for the siting of any  
8 energy facility any land, "including under water"  
9 and determines that compensation for this land  
10 is "at least equal to the amount which the owner  
11 would be entitled were such property acquired by  
12 the agency."

13 This is a dead giveaway of the State  
14 owned ocean seabed to the utility which seeks  
15 this site for the construction of the world's  
16 first ocean-based floating nuclear power plant  
17 off the New Jersey coast, including its break-  
18 water and transmission lines. And I submit  
19 that this is the real, but hidden, purpose of  
20 the proposed Agency.

21 It is a fact that the State owns this  
22 land and that no existing ordinance or legislation  
23 provides for the sale or lease of this land. It  
24 would require a new act of the legislature to sell  
25 or lease this land to the utility, but this

1 proposed Bill would by-pass the entire legislature  
2 by placing the power in this proposed Agency to  
3 acquire this land and determine the compensation  
4 paid by the utility for it. In this case,  
5 since the State already owns the land, such  
6 compensation could be arbitrarily deemed by the  
7 Agency to be zero or any insignificant amount.

8 Further, by co-joining this Bill with  
9 Senator McGahn's Bill S-1721, it crushes the  
10 purpose and effect of the latter. S-1721, standing  
11 alone, would be an impediment to the headlong  
12 dash of the utilities to "go nuclear."

13 Therefore, I urge the rapid demise  
14 of S-1407 and deem it good riddance.

15 Thank you for your time.

16 SENATOR RUSSO: Senator McGahn, I  
17 think in the future you ought to just remain  
18 quiet, because you blew that one.

19 SENATOR McGAHLN: I didn't blow it. I  
20 knew what he was going to say in advance anyway.  
21 I'm subject to criticism. That doesn't phase  
22 me in the least.

23 SENATOR RUSSO: Any questions?

24 SENATOR McGAHLN: Let me say in response  
25 to the conservation issue, this committee is

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1 cognizant of the need for conservation as are --  
2 simply saving energy supplies in this State.

3 However, you must realize that at the time this  
4 Bill was drafted, at the time it was introduced,  
5 there's a number of overlapping provisions in  
6 this that would be in the State Energy Office.

7 However, the State Energy Office at that time  
8 was still in a state of limbo, which it is really  
9 at this particular point in time. And I think  
10 you have seen just yesterday, when the report  
11 that was commissioned by the Energy Office was  
12 promulgated by the Governor yesterday concerning  
13 conservation. So that certainly we recognize  
14 the fact that conservation -- we recognize the  
15 fact that total energy systems, all of these  
16 things are very important. There's no doubt about  
17 that.

18 Why the tie-in between the two Bills?  
19 Basically, these Bills can be separated; there's  
20 no doubt about that. There's nothing sacro-  
21 sanctabout one with the other. However, if we  
22 were attempting, of course, again, to regulate  
23 energy facility sitings in the State in the  
24 other Bill would be simply a condition that  
25 any future nuclear generating plant would have to

1 adhere to. And incidentally, on that basis,  
2 also there's certain safety factors that are not  
3 contained in that as far as floating nuclear  
4 plants are concerned. We're cognizant of that,  
5 and there could be amendments made in that  
6 particular area.

7                   The needle in the haystack that Wil  
8 Rosenberg had spoken about concerning lands  
9 under water, I'm just afraid, very frankly, that  
10 he has taken Macavellian viewpoints concerning  
11 this that our chief concern in that area was  
12 pipelines, not transmission lines, coming across  
13 the shore. And very frankly, we were not sure  
14 that the State would have power even with  
15 Riparian grant to be able to control where those  
16 pipelines would be going. So that as far as  
17 that's concerned, you must realize also in  
18 advance of this, since CAFRA in DEP would be  
19 required as a prerequisite of this to designate  
20 sites where energy facilities could be sited  
21 on a CAFRA zone, a determination would already  
22 be made by CAFRA. They have that. DEP has  
23 this authority at the present time to approve  
24 that type of thing. We recognize also the fact  
25 that it will take legislative action to either

1 float a plant out there or for transmission lines  
2 or actually as far as pipelines coming across.  
3 The transmission lines and pipelines may be  
4 moot as far as that's concerned and it's very  
5 different. But in summary, we recognize con-  
6 servation, and that's being provided for  
7 through the State Energy Office.

8 Number 2, the two Bills can be  
9 separated. And Number 3, we do feel that there  
10 is much more stringent regulations and data  
11 that's needed by the State, and I think the  
12 article I read to you earlier this morning con-  
13 cerning the oil companies -- utility companies  
14 have been willing to supply data to the State.  
15 The oil companies have not. And at the present  
16 time we have no knowledge of what the on-shore  
17 impact is going to be and where it's going to  
18 be as far as off-shore drilling is concerned.  
19 This is a consideration that we have to take.

20 MR. ABRAMS: I'd like to ask one  
21 question. You said they could be separated and  
22 I'm asking why they were made companion Bills;  
23 what was the reason for that?

24 SENATOR McGAHN: I think the reason  
25 I mentioned before is, basically, we were

1 attempting -- fine, let me go on and say this:  
2 Both of these Bills are patterned after the  
3 California Bills. One was a California moratorium  
4 and when it was defeated -- and defeated in  
5 eight other states -- then we went the other  
6 route and placed certain provisions upon the  
7 nuclear generating plants as far as approval is  
8 concerned. Since we were coming up with an  
9 energy siting plan, that energy siting plan  
10 had to take into consideration the future site,  
11 the possible future siting of nuclear generating  
12 plants, and it was not excluded in that Bill  
13 as such. This then became a companion Bill  
14 to that in order to place conditions upon that  
15 particular siting. But it doesn't mean to say  
16 that this could not be a separate Bill as, of  
17 course, it is in California. We were trying to  
18 attempt to do two things that California did  
19 in two steps; that is, energy facility siting  
20 Bill and plus the three separate Bills. As a  
21 matter of fact, the California Bills were three  
22 individual, separate Bills that were encompassed  
23 in one bill here.

24 SENATOR RUSSO: Thank you, Mr. Abrams.  
25 We will try to complete the testimony of Bruce

1           Wood and Lynn Wallis. I think we have  
2           Westinghouse and G.E., I'm not sure. One is  
3           from California and has to catch a plane. That  
4           is which one?

5           SENATOR McGAHN: Mr. Wallis.

6           SENATOR RUSSO: Mr. Wallis, do you  
7           have a prepared statement?

8           MR. WALLIS: Yes, sir, I do. I will  
9           submit it and more or less make my comments  
10          extemporaneous.

11          SENATOR RUSSO: We would be most  
12          grateful, because as you heard us mention,  
13          there's a long list of witnesses and anything  
14          you can do to help us expedite it would be most  
15          appreciated.

16          MR. WALLIS: I'll limit my comments  
17          to, say, ten minutes; would that be adequate?

18          SENATOR RUSSO: Two would be better,  
19          but ten would help.

20          MR. WALLIS: I'm Lynn R. Wallis,  
21          Consultant, Health Physics to the nuclear energy  
22          divisions of General Electric Company; a  
23          physicist by training, a registered engineer  
24          and nuclear engineer in the State of California.  
25          If I were to ask you what the most important

1 development was in the last century, you might  
2 perhaps say going to the moon or some of the  
3 other space flights that we have essentially  
4 embarked upon. You might mention the impact of  
5 the airplane, communism and what have you. None  
6 of these, in my opinion, are as significant as  
7 one single event: The entrance of women into  
8 the work force. The final recognition that a  
9 woman has as many degrees of freedom as anyone  
10 else would impact very significantly on a number  
11 of jobs we will need in the future, as well as  
12 energy. We in General Electric are working  
13 in all of the various energy areas, solar power,  
14 geothermal wind; we're working on nuclear energy  
15 and have been for a number of years. We've  
16 been in that area for twenty, to be exact. I  
17 think you know what the impact has been in  
18 California with respect to some of the questions  
19 that have been asked with the various Bills that  
20 you have here, the no on 15 end of it was  
21 committed as well as about in six other states.  
22 The same kinds of questions were asked to about  
23 40 million people, 20 percent of the people in  
24 the United States that are capable of voting and  
25 of course, there was a two to one landslide

1 decision that nuclear power was needed. Not that  
2 it was safe -- I think that anybody recognizes  
3 that any kind of energy generating system does  
4 have some sort of effect on the environment --  
5 but people did recognize that it was needed and  
6 we in California are familiar with shortages.  
7 Water is one of ours, as you might imagine.  
8 If you look at various issues with respect to  
9 nuclear power in isolation, you probably can  
10 convince yourself that nuclear power is hazardous  
11 and perhaps maybe there should be a moratorium  
12 upon it. But you really can't do that. You  
13 can't look at any one energy generating system  
14 piecemeal. You've got to look at all the systems  
15 as a complete entity; then make a choice on  
16 which system is the best, which has the least  
17 environmental impact, which can generate energy  
18 in the best possible manner. We are of the  
19 opinion that nuclear power has this potential  
20 and will be used in the country to even a  
21 greater degree than it already is. We have  
22 10 percent of our energy generated by nuclear  
23 at the present time with about 64 reactors  
24 operational. California, as has been mentioned,  
25 did look at these issues in three Bills that

1       were essentially implemented at the same time  
2       that we had the Proposition 15 on the ballot.  
3       The Bills were really passed prior to the vote  
4       on the Proposition.

5                     The Energy Commission that will be  
6       established at an earlier date was mandated to  
7       provide specific reviews of the Bills and make  
8       specific recommendations to the legislature.  
9       They presently have a budget of about 13 million  
10      dollars and I'm told something like 300 people.  
11      Not all of this goes towards nuclear, but because  
12      of the questions that have arisen in the Bills  
13      with respect to nuclear power, they now project  
14      a budget of 20 million dollars next year with  
15      a staff of something like 545 people. Even so,  
16      they are now finding, if you talk to some of  
17      the commissioners, like Pasturnak and Moretti,  
18      that it is still going to be practically  
19      impossible to make findings in the generic  
20      areas that I am specifically addressing, under-  
21      grounding, waste disposal and reprocessing;  
22      and in all likelihood, they probably will kick it  
23      back to the legislature and ask for a redefinition  
24      by the legislature. They are about to wind up  
25      their hearings and will go into another set which

1 will be adjudicatory in nature and will look in  
2 the complete back end of the fuel cycle. I guess  
3 my main message is it's very, very hard to  
4 take an individual energy source and put  
5 constraints on that source without looking at  
6 all other sources in the same context and then  
7 making a valued judgement based on benefit risk  
8 as to the kind of generating system you want to  
9 employ in the future and the kind of system you  
10 want to site within a given locality. So I  
11 think that's the problem I find as an outsider,  
12 obviously, with the Bills that you have. I think  
13 it isolates one generating source and subjects  
14 it to special review, special criticism, if you  
15 will, without putting it in context with the  
16 other kinds of generating systems that we'll  
17 need and perhaps use in the future. I'll stop  
18 at this point and take any questions that you  
19 might have. As I said, my submittal does cover  
20 specific areas. It does address various issues,  
21 undergrounding as well as reprocessing and waste  
22 disposal. There is a sample of solidified waste,  
23 as you'll note, on one of the back pages. Non-  
24 radioactive, of course. With that, I'll  
25 terminate my testimony and try to answer any

40

1 questions you might have.

2 SENATOR RUSSO: Thank you, Mr. Wallis.

3 We appreciate the courtesy you've shown to us.

4 My initial question is am I not correct that there  
5 is rather a serious cleavage of opinion among  
6 your profession, nuclear physicists, I guess  
7 would be the description, as to whether or not  
8 this source of energy is safe, relatively speaking,  
9 to the public and to the future generations?

10 And I point to the illustration of the three  
11 scientists a year or two ago and, of course,  
12 the fellow in Sweden and, apparently, those who  
13 advised him and so forth. We have a real serious  
14 question, do we not, of the safety?

15 DR. WALLIS: Well, there's never a  
16 unanimous opinion on any issue, whether it is  
17 energy or the safety of nuclear reactors or what  
18 have you. I think if you look at numbers -- and  
19 I'm not saying that that's the only parameter  
20 you have to look at -- if you look at numbers,  
21 I think you'll find that those technical people  
22 who really view nuclear power as something that  
23 shouldn't be used are very, very small compared  
24 to the rest of the technical community that has  
25 said nuclear energy is the way to go. As a

1 matter of fact, it is about five hundred thousand  
2 to maybe a hundred, a hundred and fifty or what  
3 have you. So I don't really think it is divided.  
4 I think it's an erroneous conclusion.

5 SENATOR RUSSO: Did you work with  
6 those three fellows?

7 DR. WALLIS: You bet. I knew those  
8 people very well. I still talk to them,  
9 periodically.

10 SENATOR RUSSO: Is there anything  
11 that might help us, any suggestion? And I'm  
12 talking about the three G.E. scientists, who  
13 I think about a year ago -- wasn't it, Mr. Wallis?

14 DR. WALLIS: Yes.

15 SENATOR RUSSO: Who left G.E. and  
16 with a public statement rather widely disseminated  
17 said that nuclear plants weren't safe. Is there  
18 anything that could help us in evaluating their  
19 opinion, perhaps a motive -- oh, for example,  
20 and I say this facetiously, one of them just  
21 got out of a mental institution -- you know,  
22 something that can help us to evaluate why they  
23 might have gone and done what they did, a  
24 dispute with management or what have you? Or  
25 is it that they are three men who have a

1 position that they are not safe and there's no  
2 basis to suspect their motives?

3 DR. WALLIS: Well, I can go back and  
4 recite the same kind of incident occurring --  
5 and as a matter of fact Paul Harvey not too long  
6 ago referred to in Scientific American that  
7 Edison at one point in time issued a statement  
8 that he couldn't consciously support the use of  
9 a given energy source. That source happened to  
10 be electrical energy, a source you now use in  
11 your home. He said there was a risk to it and  
12 that he simply couldn't consciously promote it,  
13 and what happened was, we use it and we lose  
14 about a thousand people every year through  
15 electrocution, but the benefits are worth the  
16 risk. Now, there are people who think nuclear  
17 power is hazardous to the point where the benefit  
18 is not worth the risk or they view some of their  
19 kind of generating systems as being preferable,  
20 solar power, for example. The three G.E.  
21 engineers fall into this category. There have  
22 been people who have resigned from the NRC,  
23 who felt that there were safety problems with  
24 nuclear power reactors. But, again, let me  
25 remind you, we have five thousand people employed

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in San Jose, and those people very vigorously  
support nuclear power. Many of them have been  
involved 17 years in nuclear power as I have.  
So we're talking about three people whose  
conscience told them to go in another direction  
and they have that right. They have that right.  
But, again, you know, it is a small group,  
a minority of people.

SENATOR RUSSO: Well-put answer.

10 Senator McGaugh?

SENATOR McGAHN: Mr. Wallis, we're  
confronted also, basically, with another situation,  
another problem here from a parochial standpoint,  
and that is a proposed first nuclear floating  
plant. On the standpoint of safety factors,  
do you feel that this proposed technology  
is any different than land-based plants? Are  
there any additional risks involved in this  
that haven't been addressed, as far as the  
industry is concerned over the past 20 years?

21 DR. WALLIS: I really feel I have to  
22 essentially divert that question to the next  
23 witness. I've not been involved in reviewing  
24 nuclear power plants and I just simply really  
25 don't have much knowledge in that area, so I

1 think he's better able to answer that question.

2 SENATOR McGAHN: Thank you. I think  
3 Mr. Reifer has a question.

4 MR. REIFER: Mr. Wallis, I understand  
5 that what you were saying about nuclear power  
6 is that one ought not to take one aspect of  
7 that energy source and segment it out and on  
8 the basis of that single aspect make a judgement  
9 on the energy source. I put it to you, might  
10 that not be -- might one not draw an analogy  
11 and say that one, perhaps, ought not to identify  
12 one energy source out of the context of an  
13 entire energy mix and, say, let's go nuclear  
14 or let's go coal or let's go wind, but that the  
15 energy picture ought to be looked at and it's  
16 a mix of energy sources that one ought to place  
17 one's emphasis on; is that not a reasonable  
18 analogy?

19 DR. WALLIS: Oh, I would wholeheartedly  
20 agree. And as a company, we have done specifically  
21 that. We were the first ones to build generators  
22 for geothermal plants, for example. We have  
23 a giant windmill we're working on. We sell  
24 solar systems, solar panels. So I would agree  
25 you've got to look at everything that's available

1 and in my view you're going to use everything  
2 you conceivably can get just to get by. But  
3 now there's one specific element that enters  
4 into the equation. In order to generate  
5 bulk quantities of electrical energy at the  
6 present time, we only have two mechanisms,  
7 really available now, and that's nuclear power  
8 and coal. I think you'll find the President's  
9 energy message will probably focus on both of  
10 those quite heavily. That doesn't mean we should  
11 not continue to try and use geothermal, for  
12 example, as we are in California; that we  
13 shouldn't try to find breakthroughs in solar,  
14 again, as many companies are trying to do, but  
15 you've got to be realistic in that you've got  
16 to use what's here now with the intent of  
17 getting by between now and, let's say, the year  
18 2000 when these other systems are available.  
19 Geothermal has been touted as being one of the  
20 very saviours for California. But what do you  
21 do about the radiation problem? The amount of  
22 radiation coming out of those wells is a thousand  
23 times greater than permissible around nuclear  
24 power plants and, of course, the pipes plug up  
25 in the Imperial Valley within 24 hours, so we've

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1           got a lot of work to do in some of these other  
2           areas. All I'm saying is don't isolate nuclear  
3           power and look at it specifically by itself,  
4           nor, essentially isolate the other kinds of  
5           generating systems, but look at the whole  
6           thing and then decide on a reasonable mix.

7           MR. REIFER: Mr. Wallis, if there  
8           were governmental, environmental restrictions  
9           on the construction of nuclear facilities, you  
10          think yourself as a scientist and as a business-  
11          man and as a citizen, what percentage of the  
12          nation's energy needs would you like to see  
13          provided by nuclear power by the year 2000?

14           DR. WALLIS: Well, there have been  
15          various numbers that have been used, all the  
16          way from 30 percent to 50 percent. I think it  
17          is realistic to think in terms of 30 to 35 percent,  
18          provided we get on with the job and provided  
19          some of the regulatory problems are resolved  
20          in Washington D.C. I guess I have confidence  
21          and I think the Carter administration will  
22          probably do that. They'll make a decision on  
23          which way we're going to go and then I'm  
24          confident we'll get on with the job.

25           MR. REIFER: How involved in fusion

1 research is your company?

2 DR. WALLIS: Oh, very involved. G.E.  
3 has put three million dollars a year of its  
4 own money into the University of Rochester,  
5 and that's a lot of light bulbs, believe me.  
6 You've got to sell a lot of light bulbs to get  
7 that money. And we put some money into other  
8 colleges. The problem with fusion is we have  
9 never gotten to the point where we've demon-  
10 strated the process could work, and, indeed,  
11 if you talk to some of the people at the  
12 Lawrence-Livermoore Lab, they'll tell you the  
13 first use of the fusion machine will be to  
14 produce fuel for light water reactors. It is  
15 a lazer, perhaps, inducted device which is a  
16 pulse device which creates fuel which you,  
17 in turn burn in light water reactors.

18 MR. REIFER: But recognizing, as I'm  
19 sure you do infinitely more than I'm capable  
20 of realizing, that so many of the environmental  
21 safety health objections to the present system  
22 of nuclear power generation would be eliminating  
23 fusion power water on stream. Why is it that  
24 there isn't more of an emphasis on the part  
25 of the private sector in that region?

1                   DR. WALLIS: Well, there is. And I  
2 think you'll see even more under the Carter  
3 administration. It doesn't solve all your  
4 problems. As far as radioactive waste is  
5 concerned, fusion has its own problems. You  
6 produce large quantities of tritium in the  
7 inner chamber, and the fusion device is good  
8 for maybe one year. If you look at the induced  
9 radioactivity in that, it is tremendous. So  
10 we still have a long term radioactive waste  
11 problem, even though fusion is used. So it  
12 doesn't obviate all of the problems, and again,  
13 nobody's been able to make it work. They've  
14 never been able to break the barrier. I think  
15 until that happens, you know, they'll put  
16 money in trying to essentially derive the  
17 science of plasmaphysics which we didn't have  
18 for a number of years.

19                  MR. REIFER: Would you support a  
20 major federal initiative in fusion research in  
21 terms of providing R & D money?

22                  DR. WALLIS: Well, I would support a  
23 federal initiative for providing R & D money for  
24 all of the various energy mixes. I don't think  
25 we should focus on just fision or just fusion.

1 I think we need to go into solar, as well as  
2 the others I mentioned, geothermal. I think  
3 we've got to look at them all. But we've  
4 got to use what we know how to at the present  
5 time to generate bulk quantities of the energy  
6 and, again, I'll remind you, that's two,  
7 nuclear and coal.

8 MR. REIFER: Thank you very much.

9 SENATOR RUSSO: We'll take one last  
10 short -- thank you Mr. Wallis -- one last  
11 short witness before breaking for lunch, and  
12 that's Mr. Wood.

13 MR. WOOD: My name is Bruce Wood.  
14 I work for the Westinghouse Electric Corpora-  
15 tion and I'm presently employed at Pittsburgh,  
16 Pennsylvania. I'd like to briefly summarize  
17 my qualifications for being here today. I'm  
18 currently employed as a project manager for  
19 a series of nuclear power stations. I've been  
20 employed in this general capacity for over  
21 two years as a manager and for my entire  
22 working career since 1970 in this field with  
23 Westinghouse. I'm a 1970 graduate of Oregon  
24 State University with a degree in mechanical  
25 engineering. My major concentration while I

1 was at Oregon State was in air sanitation  
2 engineering. So I also feel I am a very strong  
3 environmentalist and I hope to address the  
4 issue today both as an engineer, knowing the  
5 insides and outsides of the industry, and as  
6 an environmentalist, that I've looked at other  
7 energy sources and hopefully can establish  
8 a perspective on what we're talking about.

9                   I'm sure we all agree today that we've  
10 got an energy problem. We've got to work very  
11 hard to make decisions today that will make  
12 intelligent use of the available energy resources  
13 we have in a safe, economical, environmental  
14 acceptable manner. The energy problem at hand  
15 is very simple: Oil and natural gas today  
16 supply about seventy-five percent of our needs  
17 and these sources are fast running out and  
18 in the process of becoming very expensive, and  
19 the solution is not simple. The federal  
20 government has been struggling for years to  
21 develop a comprehensive national energy policy  
22 Hopefully on April 20th, we'll be able to  
23 see that policy and start the ensuing national  
24 debate that will surround that policy. I  
25 think that the keystone of any energy policy

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1 has to be conservation. Earlier witnesses have  
2 said this and I'll say it again; that is the  
3 near term solution to our energy problem and  
4 a long term solution to reduce the fate of  
5 energy growth. We can't continue to grow  
6 like we have in the past. We must learn to do  
7 this calculation, also learn how to use our  
8 coal and uranium resources. At the same time,  
9 as Mr. Wallis has stated and others, we're  
10 going to have to develop the other more advanced  
11 energy resources such as solar, geothermal,  
12 the advanced nuclear sources and the like.

13           The legislation you're considering  
14 today concerns the role nuclear power will play  
15 in the energy future of the citizens of New  
16 Jersey. I encourage similar hearings of this  
17 nature to discuss other energy sources so that  
18 a well-balanced data base is available for  
19 energy planning. I've studied the New Jersey  
20 legislation in detail and similar legislation  
21 in California and other states. The intent  
22 is quite clear in the nuclear reassessment act,  
23 senate Bill 1494. First of all, nuclear plant  
24 construction is to be banned for four years,  
25 and unless certain conditions are met future

1 construction be banned completely and all  
2 assisting plants will be shut down. The impact  
3 of this can be very severe since today fifty  
4 percent of the electricity in New Jersey comes  
5 from nuclear power and by 1985 this will be  
6 over fifty percent with the completion of those  
7 plants now in various stages of design and  
8 construction. With the nuclear option gone,  
9 the fifty-two percent of electricity now generated  
10 with oil will have to increase along with more  
11 reliance on coal. The question must be asked:  
12 Is there other sources as clean, as safe,  
13 environmentally acceptable as economic as  
14 nuclear power and do they make wide use of  
15 our available natural resources. Let's look  
16 at the criteria in the Bill. The first deals  
17 with insurance. The Bill basically says that  
18 the utilities have to purchase maximum feasible  
19 protection insurance for maximum insurance  
20 to cover the maximum feasible consequences of  
21 any reactor accident. Under this Act, the  
22 utility must purchase approximately a hundred  
23 and forty million dollars available from  
24 private sources. It also has to participate  
25 in a program where operating utilities provide

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1           a second layer of insurance based on the number  
2           of operating plants they have, which provides  
3           up to four hundred sixty-five million dollars,  
4           and the remainder of the insurance up to  
5           five hundred sixty million dollars has to be  
6           provided from the federal government. Given  
7           present plans for nuclear power coming on  
8           by early 1980s, two things are going to happen;  
9           one is the federal government isn't going to  
10          supply this insurance any more. It's not  
11          going to be needed. And second, the limit to  
12          liability is going to continue to increase.

13           I think the real question: Is this  
14          insurance enough. The reactor safety study,  
15          commonly referred to as the Rasmussen report,  
16          states the possibility of any accident exceeding  
17          the present five hundred sixty million dollar  
18          limit is one in two million per reactor year.  
19          In the very remote event this might happen,  
20          congress has indicated it would consider  
21          appropriation of further funds. What this  
22          really says is that it requires the utilities  
23          and the consumers of the State of New Jersey to  
24          go out and buy fourteen billion dollars worth  
25          of insurance. And I ask the question: Is this

1 really necessary that the rate payers have to  
2 pay this. And I think the answer is no. And  
3 at the same time I implore you to evaluate  
4 public protection from potential dangers of  
5 other energy sources. To my knowledge no  
6 similar protection exists in the event of a  
7 liquid natural gas tank explosion in the New  
8 Jersey harbor, and I contend that the con-  
9 sequences are much more severe than any  
10 scenario you could develop with a nuclear power  
11 station.

12 The second criteria of the Bill states  
13 that nuclear power must be shown superior to  
14 all alternatives on the basis of long term  
15 liability, safety and health effects, environ-  
16 mental effects, employment protection and cost  
17 to the consumer. I think this has been  
18 discussed at length, but I think implicit in  
19 this criteria is the assumption that we have  
20 the luxury to decide on one energy source in  
21 the future and that no other need to be used.  
22 This is absolutely not the case.

23 SENATOR RUSSO: How come, if I might  
24 interrupt you, how come you're just getting  
25 around to realizing that in the last year or  
two?

1                   MR. WOOD: I hope I haven't been.

2                   SENATOR RUSSO: Well, because, you  
3                   know, the thing that really -- I just read  
4                   that. I can't sort of run a little ahead,  
5                   and I read that and I thought a company like  
6                   yours, Westinghouse and G.E. you know, it was  
7                   only, what, two years ago when they were ad-  
8                   vertising gold medallion homes and they were  
9                   coming around on the job sites and talking  
10                  to builders; why don't you go all electric?  
11                  And now you're telling us that we're forced  
12                  into this because energy, other sources,  
13                  other forms are running out?

14                  MR. WOOD: Well, when you look at  
15                  the concept of an all electric home, I think  
16                  that's going to be the future way we go. We're  
17                  going to have certain support from nuclear  
18                  power, heating and cooling, and it's going to  
19                  play a very important part. But in the near  
20                  term, what we're heating our homes with is  
21                  natural gas and oil. And with the scarcity  
22                  of natural gas and the price of oil, where do  
23                  we turn? Solar power can't do it by itself,  
24                  and any other scenario you can develop really  
25                  can't do it by itself.

1 SENATOR RUSSO: When you were ad-  
2 vertising all electric homes, you were talking  
3 about electric created by burning oil, weren't  
4 you?

5 MR. WOOD: By all kinds of means.  
6 Westinghouse, for example, has been in the  
7 nuclear industry for twenty years on a commer-  
8 cial basis.

9 SENATOR RUSSO: My point is, and it  
10 might be off the point a little bit, but I  
11 think really a company such as yours maybe  
12 deserves a little jam now and then. We look  
13 to you; you're the leaders in this field.  
14 You're supposed to guide us and you're offering  
15 prizes, bonuses to use more electricity. Two,  
16 three years ago, the natural gas companies'  
17 did the same thing. And now you're telling  
18 us what terrible tragic shortages we're  
19 facing. We've got to have nuclear plants  
20 because we're so short. It makes you wonder  
21 about industry in this country, doesn't it,  
22 the layman who says, "What's going on?" Some-  
23 body's fooling me.

24 MR. WOOD: I now recognize the  
25 confusion on the layman's part and I think,

1 quite honestly, the industry, and I'll say that  
2 across the board, the utility industry, the  
3 electrical manufacturers, haven't done a very  
4 good job of going out and communicating with  
5 the public on what their problems really are,  
6 and that's, honestly, why I'm here today, to  
7 try to do that, because I share a lot of your  
8 concerns. You know, they're offering bonuses  
9 for increased use of electricity, though,  
10 Westinghouse can't do that, obviously. That's  
11 a utility function. But I think we all recognize  
12 the folly in that. And I think it all really  
13 started -- we finally got the rude awakening  
14 in 1973 with the Arab oil embargo. And I think  
15 we have to do a lot of really serious thinking  
16 about what we're going to do in the future  
17 because right now fifty percent of our oil  
18 is coming from over seas and that's an untenable  
19 situation in my book. And in New Jersey I  
20 would estimate that it's much higher than that.  
21 Ninety percent from over seas in New Jersey?  
22 And you look at sixty-two percent of electricity  
23 in New Jersey from foreign oil, the people in  
24 New Jersey are being challenged directly by  
25 the Arabs and I don't think that's right.

I think that the preferable approach is what we mentioned earlier, to set these standards as we've done over the years. Nuclear power has been here, coal has been here, oil has been here. We all know what we accept. What kind of environmental damage, what kind of environmental protection is required, health, economics, set the standard across the board. Then look at everything compared against that and don't single it out as other people would you like you to do and work in a vacuum with tunnelvision with any one given energy resource. I think nuclear power -- and I am prepared to back up all my statements, of course -- I think it compares very favorably with all the criteria noted in Senate Bill 1494. When you compare it to coal, natural gas and hydro-electric power and other sources, such as solar, geo-thermal and advanced forms of fusion and nuclear fission, I think you have a good basis to start from. First off, we're going to have to quit using oil and natural gas. There's no question about that. I think we all accept that, and I think everybody in the room will identify with that. The future sources, other

1 than coal and nuclear aren't available. They  
2 might not be available for twenty, thirty,  
3 forty, maybe ever. They're a long ways away.

4 When you talk about long term reliability,  
5 two important considerations exist. First,  
6 will there be sufficient fuel available to meet  
7 our future energy needs, and second, will the  
8 power generation facility be sufficient to  
9 produce the power when needed. With regard to  
10 the fuel availability question, concerns exist  
11 for both coal and uranium, but neither is  
12 considered to have critical problems. Coal  
13 availability, strangely enough, is limited to  
14 the ability to increase mining without undue  
15 safety and environmental problems. I think  
16 that's going to be the real stumbling block  
17 when you start to develop our coal resource.  
18 ERDA in conjunction with the energy resource  
19 council has performed a study on uranium  
20 availability and the results being that they  
21 project that sufficient uranium is available  
22 to fuel all nuclear power plants built until  
23 the early 1990s. Thus, enough fuel exists  
24 using conventional mining enrichment technolo-  
25 gies at least until the year 2030. This would

allow sufficient time for a breeder to be operational which can operate for two to three centuries using the low rate uranium we're already mining. Also our available uranium resource can be increased by approximately twenty-five percent through the use of plutonium recycling. Coal also presents an abundant resource, but to utilize it to its fullest potential, dramatic increases in mining capabilities railroad building and waste handling disposal systems will be required.

For our future energy needs to be met by coal alone our mining ability needs to be increased by more than a factor of three in a period of less than ten years. I just saw in the paper the other day where we finally in 1976 reached a level of coal mining that we had in 1956. We've got a long ways to go to get back up. On the reliability question, I think all studies have shown -- all studies that have merit -- that the operational reliability of coal and nuclear plants are about equal. In some case one is better and in some cases, another is better. I think with regards to the health and safety effects, the record

1 speaks for itself. We've had commercial  
2 and nuclear power plants in this country for  
3 twenty years, and during that period, not one  
4 person has been killed or injured due to  
5 radiation-related accidents. No other industry  
6 can say that, and I'm glad that the nuclear  
7 industry can say that with conviction. Any  
8 potential health effects associated with  
9 nuclear power are related to radiation. Much  
10 is known about radiation, as it has been studied  
11 at great length since the late 1800s. It's  
12 sad to say we don't know as much about the  
13 effects of air pollution. But what we do know  
14 we know that drastic measures need to be taken  
15 to reduce it. The same is not true from  
16 radiation from nuclear power plants. In fact,  
17 less radiation is given off from a nuclear  
18 power plant than a person gets from watching  
19 colored T.V. As an environmentalist, I  
20 believe the minimum impact on the environment  
21 of the nuclear plant is one of the most important  
22 reasons to develop this energy source. The  
23 Council on Environmental Quality agrees with  
24 me, along with the National Wildlife Federation,  
25 the National Audubon Society and other groups

1 truly concerned about the environment. The  
2 nuclear power plant has two environmental  
3 discharges: One is hot water and the other  
4 is radiation. Coal-fired power plants also  
5 have both of these, plus more. The exhaust  
6 gases from the combustion of coal contains  
7 sulphur dioxide, carbon dioxide, carbon monoxide,  
8 nitric oxides and various other organic and  
9 inorganic substances and large quantities of  
10 fly ash. Some of these are controlled, such  
11 as the sulphur dioxide and fly ash, but the  
12 remainder are largely uncontrolled. The growing  
13 concern over carbon dioxide might, by itself,  
14 result in a severe limitation on continued  
15 fosile plant construction until a method is  
16 developed to control it. Environmental problems  
17 also exist with the so-called controlled  
18 pollutants. The amounts of fly ash and sulphur  
19 collected each day is staggering and once they  
20 have been collected they must be disposed of  
21 in an environmentally acceptable manner. The  
22 employment potential for the various alternate  
23 forms of electricity generation can be addressed  
24 in three ways; one is the m jobs created by  
25 plant construction, the second is jobs created

1 by plant operation, and the third is jobs  
2 created or maintained due to the availability  
3 of energy. The first two are relatively minor  
4 when compared to the third, though they may have  
5 profound effect on the local economics of the  
6 areas where the plants are located. The  
7 important issue is the jobs created by the  
8 available economic energy. The lessons of  
9 this past January and February shouldn't be  
10 forgotten. Since nuclear plants provide less  
11 expensive electricity, their impact upon New  
12 Jersey economy will be favorable. Nationwide,  
13 the bus bar cost of electricity from nuclear  
14 plants is \$1.23 per kilowatt hour, for coal  
15 plants \$1.75 per kilowatt hour and for oil  
16 plants \$3.35 per kilowatt hour. The costs for  
17 coal and oil will be considerably higher in  
18 New Jersey due to the higher transportation  
19 costs for coal -- since you have no available  
20 resources -- and the higher costs for imported  
21 oil, since we heard ninety-two percent of the  
22 oil used in New Jersey comes from over seas  
23 at high prices. The effect of electricity  
24 price upon the increased activity of firms  
25 currently located in New Jersey and upon the

1           decision of firms considering relocating  
2           in New Jersey is likely to be the most  
3           important factor regarding the employment  
4           potential of the various alternatives for  
5           electricity generation. The cost of electricity  
6           to consumers, I think, is a widely misunder-  
7           stood subject. There are five factors that  
8           go into it. First is the capital cost, the  
9           cost of building the plant; the second is  
10          operation and maintenance costs, the obvious;  
11          the third is fuel costs; the fourth, distri-  
12          bution and the fifth, administration. The  
13          first three make up the bus bar costs that  
14          I spoke of earlier. Distribution and ad-  
15          ministration are independent of fuel type  
16          and are not considered here. Nuclear plants  
17          are most expensive with a 1976 capital cost  
18          of \$925 per kilowatt, coal next at \$780 and  
19          then oil at \$500. The operating and maintenance  
20          costs are about equal for coal and nuclear  
21          with oil, again, being the cheaper. With  
22          the fuel costs, the situation is reversed.  
23          The most expensive is oil, followed by coal,  
24          and nuclear is the least. In the final  
25          analysis, the cost of electricity from a

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1           nuclear power plant is cheaper than any other  
2           major source available today and is less  
3           subject to change due to higher fuel costs.  
4           As an example, the average American family  
5           of four uses approximately 12,000 kilowatt  
6           hours of electricity per month. If all of  
7           this came from oil, the family's bill would  
8           be \$60.30; from coal, \$31.50, and if it came  
9           from nuclear, his bill would be \$22.14. I  
10          think the economics speak for themselves.

11           The proposed legislation also  
12          states that the effectiveness of all safety  
13          systems must be demonstrated by testing  
14          substantially similar systems in actual  
15          demonstration. I assume this means actual  
16          operation rather than actual demonstration.  
17          To an engineer, this says that a full scale  
18          nuclear power plant should be subjected to  
19          a series of destructed tests to satisfy the  
20          legislature. First, this is not needed,  
21          and second, the limited number of tests that  
22          could be run before the plant is destroyed  
23          would not be meaningful. From an engineering  
24          viewpoint, a series of well-devised tests  
25          of individual components and groups of

1 components give much more conclusive data  
2 than large-scale tests. In fact, full scale  
3 testing may hinder fundamental understanding  
4 of the phenomena which could go on under  
5 accident conditions in a nuclear power plant.  
6 The safety systems which now exist in nuclear  
7 power plants are as a result of tests and  
8 development beginning in the late 1940s and  
9 early 1950s. And I think all the tests that  
10 have been done to date conclusively prove  
11 that the engineers that design these plants --  
12 including myself, know what we're doing and  
13 the systems will work when called upon. This  
14 is further reiterated in the Rasmussen study.  
15 If you haven't reviewed that document, I  
16 would heartily recommend that you do so.

17 The final criterian specified says  
18 that the radioactive wastes from nuclear  
19 fission power plants can be transported,  
20 stored or disposed of with no reasonable  
21 chance of escape to the natural environment.  
22 The primary concern surrounding nuclear wastes  
23 is the so-called high level wastes. To gain  
24 a better understanding of these wastes, you  
25 first must have a general understanding of the

1           nuclear fuel cycle. First, radioactive  
2           uranium ore is mined, milled, and enriched  
3           to increase the concentration of fissionable  
4           uranium 235. The uranium is then formed  
5           into small solid ceramic uranium dioxide  
6           pellets. These pellets are then sealed in  
7           metal rods, arranged in arrays called fuel  
8           assemblies and sent to the nuclear plant.  
9           During the process of fission, the uranium  
10          235 atom is split, giving off heat and leaving  
11          fission fragments. These fission fragments  
12          are tightly contained in the ceramic pellet  
13          in the fuel assembly until the assembly is  
14          removed from the reactor, shipped to the  
15          reprocessing plant, disassembled and dissolved  
16          in a strong acid solution. So on the plant  
17          itself, they're locked in. On a typical  
18          plant one third of the reactor fuel is  
19          replaced each year and from this approximately  
20          sixty-four cubic feet of waste remains.

21           SENATOR RUSSO: Mr. Wood, you appear  
22          to be just reading your statement you've  
23          submitted.

24           MR. WOOD: No, I'm leaving parts of  
25          it out.

1                   SENATOR RUSSO: Would you leave more  
2 parts of it out, because we've got copies of  
3 it, and the Court Reporters are getting  
4 hungry. It's 1:20, and I want to accommodate  
5 you, because of the distance you have to  
6 travel.

7                   MR. WOOD: I appreciate that.

8                   SENATOR RUSSO: But we have to ask  
9 you to help us.

10                  MR. WOOD: Yes. I thought it was  
11 important enough to bring up some of these  
12 points, not only for the education of yourselves,  
13 but for the education of others.

14                  SENATOR RUSSO: We have no objection  
15 to you taking as long as you want, as long  
16 as it's after lunch. If you'd like to come  
17 back after lunch, we'll give you all the time  
18 that you need.

19                  MR. WOOD: Let me summarize so others  
20 will have the opportunity also. I think that  
21 the important questions on waste is do we  
22 know what we're doing, can we handle it, can  
23 we dispose of it. And the answer to that is  
24 a hearty yes. The only question we have in  
25 this country today is which way of the proven

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1           technologies are we going to go? We've got  
2           proven technologies here; we're doing it on  
3           our military programs. Other countries in  
4           the world have presently either planned or  
5           under construction commercial sized plants  
6           to take care of nuclear waste, so that it's  
7           not a case of can we or can we not. It's a  
8           case of what will we do.

9           I think on the question of reprocessing,  
10          which is addressed in both 1721, it seems to  
11          point out that we don't know what we're doing  
12          when we're reprocessing. I think it's important  
13          that we know how to reprocess. It's been  
14          done in this country on a commercial scale  
15          and it's at one location and it's presently  
16          planned to be done other places. Other nations  
17          around the world are doing it. France is  
18          doing it. They have a large plant in LaHague  
19          to do this. The real question is do we need  
20          it, and the answer is no. Reprocessing, from  
21          an economic point of view is marginally  
22          economic. It does make economic sense, but  
23          only marginally. The real issue is it concerns  
24          resources, and I think that's the reason why  
25          we should go to reprocessing to get use of

1                   this 25 percent plutonium recycling capability.  
2  
3                   I hope I've been able through my written  
4                   testimony and the words I have said to provide  
5                   a better prospective for you to analyze this  
6                   nuclear issue and also analyze other energy  
7                   issues you're going to be faced with. I  
8                   heartily recommend you reconvene other  
9                   hearings of this type to discuss the other  
10                  energy resources, such as coal and maybe oil,  
11                  natural gas, maybe even solar, if it appears  
12                  to have potential for you. Don't look at it  
13                  in a vacuum. Now, I'll be glad to answer  
14                  any questions you have for me now or at a  
15                  later date. If you like, my address is in  
16                  the testimony. Also, I've listing in my  
17                  testimony a list of references I've used,  
18                  and if you care for a copy of the references,  
19                  I'll be more than happy to give it to you.  
20  
21                  Thank you.

22                  SENATOR RUSSO: Thank you. Senator  
23                  McGahn, do you have a question?

24                  SENATOR McGAHN: I'd like to address  
25                  myself to the question I asked the previous  
                        gentleman. And that is concerning, basically,  
                        the possible safety factors between land based

1                   nuclear generating plants and the floating  
2                   nuclear plants, which we are now faced with  
3                   the first floating nuclear plant -- do you  
4                   consider the technology for land based plants  
5                   as being the same, having the same degree of  
6                   safety as you said of the safety record and  
7                   health record of the past twenty years for  
8                   the others, or do you consider the fact there  
9                   might be additional problems, safety factors  
10                  that have not been addressed as yet?

11                  MR. WOOD: I think, first, we have  
12                  to understand that the nuclear steam supply  
13                  system to the floating plant is exactly the  
14                  same system as designed for land based  
15                  application. I think it's been thoroughly  
16                  reviewed and studied in a number of occasions.  
17                  I think the question of whether or not the  
18                  technology is directly applicable off shore is  
19                  probably a direct question and it's been the  
20                  subject of many hearings which are going on  
21                  now. Since my specific project responsibility  
22                  doesn't include these units, I can't go into  
23                  the details of it. If you have specific  
24                  questions, I'll be glad to take them back,  
25                  get the answers and get the answers back to you.

1 SENATOR McGAHN: There has been an  
2 allegation, which is simply turbine missile  
3 contention; that the position at which these  
4 turbines are located in this may actually --  
5 where the fly wheel would come off and act as  
6 a missile penetrating the core containment.  
7 Could you address yourself to that issue?

8 MR. WOOD: The issue was addressed  
9 prior to this on the land based plant. It was  
10 deemed to be conservative -- not necessary,  
11 but conservative to turn the angle orientation  
12 of the turbine such that any potential missiles--  
13 not from the fly wheel but from the turbine  
14 blade itself would be projected out away from  
15 the containment. There hasn't been any  
16 studies that anybody's come up with that shows  
17 that a turbine missile could actually be  
18 generated with a force to penetrate the  
19 erector containment structure itself, and  
20 even if it did, it probably couldn't cause  
21 any damage inside the containment. So I  
22 believe the orientation that exists on the  
23 older land base plants and will exist on the  
24 off shore plants will probably be deemed to  
25 be adequate. Again, I would refer you to the

1           specific hearings that are going on with the  
2           NRC at all levels to discuss this in detail.  
3

4           SENATOR McGAHN: However, I think  
5           that basically we're dealing with two different  
6           things; we're dealing with land base where  
7           there's no movement at all, and we're dealing  
8           with off shore where there's a barge with  
9           the nuclear generating on top of that and  
10          the allegation has been made that the possible  
11          movement of this may be responsible for  
12          bringing about some condition which would  
not occur on land.

13          MR. WOOD: I've heard of this, but  
14          I know the criteria is can a missile, even  
15          though no matter how it's generated can it  
16          penetrate the containment, and nobody has  
17          come up with the calculations that has shown  
18          that it can.

19          SENATOR McGAHN: And nobody has shown  
20          that it can't.

21          MR. WOOD: I guess on that issue...

22          SENATOR McGAHN: Yes. The other,  
23          of course, is the economics, as far as the  
24          economics of electric generation by nuclear  
25          as against coal and as against oil, certainly

1           it's true at the present time that certainly  
2           nuclear generation of energy is a lot cheaper.  
3           However, the allegation also has been made  
4           that certainly the supply of uranium, of  
5           yellow cake -- certainly as far as this  
6           country is concerned is in limited supply.  
7           I think just recently, if I'm not mistaken,  
8           Westinghouse, which had been sued by some  
9           of the utilities because they were unable to  
10          provide what they had contracted for. I  
11          think at the present time it's some forty  
12          dollars per pound; the price, of course,  
13          under the circumstances, basically, would  
14          go up, given the particular circumstances in  
15          which yellow cake would have to be imported  
16          in this country; could we not expect exactly  
17          the same thing, a consortium of developing  
18          countries, third world countries coming up  
19          with OPEC did, and certainly do we not see  
20          somewhere down the line, as far as any  
21          electrical generation is concerned, there would  
22          be parity between the prices on the basis of  
23          one thousand units per BTU's.

24           MR. WOOD: No. When you look at the  
25          detailed economics of the price buildup and

1       one of my references has that in it, and I'll  
2       supply it for you, it shows the cost of  
3       electricity from the changes in the price of  
4       uranium is very insensitive. The numbers I  
5       gave in my testimony of twenty-two dollars  
6       and whatever cents for nuclear power, if the  
7       price of uranium ore doubled, that would only  
8       be about twenty-eight dollars, and compared  
9       with the price of doubling of coal and the  
10      price of the doubling of oil -- because coal  
11      and oil have a greater percentage of the cost  
12      of electricity -- the oil price would be  
13      nearly ninety dollars compared to sixty  
14      dollars. So, we've looked at it, and with  
15      respect to the importation of uranium, we've  
16      looked at our own resources, just so we don't  
17      get in a situation where we're dependent on  
18      another country for our uranium resources.  
19      You heard the study which I mentioned in my  
20      testimony. I looked at how much uranium  
21      was available at thirty dollars a pound,  
22      recognizing that's invalid now, at forty,  
23      the resource grows with the price of uranium  
24      we've got enough uranium to get us until  
25      2030. And if you compare that with the

1 amount of oil we ever had, it's probably  
2 greater on an energy input basis, so there is  
3 limitations and without question, we're going  
4 to have to continue to research more diligently  
5 to find uranium, but it's here today. We  
6 got it. It has a minimal impact on the cost  
7 of electricity for consumers which is what  
8 we all want, and I think we should develop it.

9 This is the high light, I think the  
10 breeder reactor is a very interesting concept  
11 here, because a lot of people don't recognize  
12 that all the fuel the breeder reactor will  
13 need for about two or three hundred years has  
14 already been mined. It's stored in burials  
15 at three or four sites around the country  
16 by the U.S. government. So with that and the  
17 breeder system, it's a very stable supply of  
18 electricity at a reasonable price. And I  
19 don't think we should ignore that potential.

20 MR. REIFER: Mr. Wood, just a very  
21 brief question, is it not true that something  
22 like ninety to ninety-five percent of the  
23 nuclear waste in the United States today is  
24 really generated by Federal Government's  
25 military activities?

1 MR. WOOD: That's absolutely correct.  
2

3 MR. REIFER: And is it then not  
4 true if we never built another nuclear  
5 electric generating station that this waste  
6 would be whatever problem it would be right  
7 now solely because of the Federal Government's  
8 defense?

9 MR. WOOD: That's again correct. And  
10 I think it emphasizes the need, independent  
11 of a commercial nuclear program, we must  
12 develop these reprocessing technologies on a  
13 very hard scale to handle these wastes  
14 developed from our military programs from the  
15 past twenty or thirty years. Very good  
observation.

16 SENATOR RUSSO: Thank you, Mr. Wood,  
17 very much.

18 MR. WOOD: Thank you.

19 SENATOR RUSSO: When we resume, Dr.  
20 Morell will be the first witness. Mr.  
21 Avakian will be the second witness, followed  
22 by Freeholder Fusilly. Is Mr. Marciante here?  
23 No. And then we'll proceed and continue with  
24 the list from that point. Do you want to  
25 say something, sir?

1                   MR. GOODMAN: I didn't see myself  
2       on the list. I came all the way from North  
3       Jersey.

4                   SENATOR RUSSO: You are --

5                   MR. GOODMAN: Sidney Goodman. I was  
6       told I would be on the list and I don't believe  
7       I am on it.

8                   SENATOR RUSSO: Well, in any event,  
9       we'll add you to the list. We'll hear you  
10      this afternoon.

11                  We'll resume, hopefully, by 2:15,  
12      2:15 or 2:30.

13                  - - -

14                  LUNCHEON RECESS

15                  - - -

16  
17                  SENATOR McGAHN: Ladies and Gentlemen,  
18       may we come to attention, please. The  
19       afternoon session will continue. The first  
20       individual to be testifying will be Dr. David  
21       Morell, Center for Environmental Studies,  
22       Princeton University.

23                  DR. MORELL: Senator McGahn, thank  
24       you. I'm very pleased to respond to your  
25       invitation to testify on proposed legislation,

1                   particularly regarding energy facility siting  
2                   in New Jersey. I think it's unfortunate that  
3                   we're having to address both the important  
4                   nuclear energy bills and the important facility  
5                   siting bills on the same day. I'll spend most  
6                   of my time focusing on 1407, the siting Bill.  
7                   At the Center for Environmental Studies, we  
8                   have been conducting research on this subject  
9                   for the past two years, and thus we appreciate  
10                  some of the complexities involved from the  
11                  political environmental and socio-economic  
12                  viewpoints. The sponsors of the legislation  
13                  under consideration today are to be commended  
14                  for addressing in a comprehensive manner the  
15                  thorny but crucial siting dilemma. I hope  
16                  that my comments today will assist the  
17                  legislature in its search for the best possible  
18                  legislation for New Jersey, a highly energy  
19                  intensive and highly population dense State.  
20                  Such State initiative can be an important  
21                  step in breaking the cycle of private action  
22                  and government reaction where ad hoc decisions  
23                  are made in a policy vacuum. Three of our  
24                  research studies at Princeton in particular  
25                  relate to the proposed siting legislation:

1 One, a study of energy facility siting  
2 legislation in the eleven states of the north-  
3 east, from Maine to Maryland; the second, a  
4 study of governmental capabilities to make  
5 OCS-related energy facility siting decisions  
6 in New Jersey; and the third, a study of a  
7 hypothetical cluster of nuclear power plants  
8 in Ocean County. In my written statement I  
9 cover a number of issues in the SEFA 1407  
10 legislation. What I'd like to do is just  
11 note them in passing at this point to be able  
12 to focus on what I think are a couple of the  
13 real critical issues raised in the proposed  
14 legislation. I talk in the written statement  
15 about the locus of the new SEFA nuclear energy  
16 agency, where it should be located. The  
17 general thrust of my recommendations is that  
18 we ought to consider consolidating energy  
19 planning rather than scattering it further  
20 throughout state government. To use an  
21 analogy to the recent move by the Carter  
22 administration to bring together energy  
23 planning in a single department of energy  
24 at the Federal level, perhaps the time has  
25

1 come for New Jersey to consider a similar  
2 move, rather than establishing another energy  
3 body, this time within the department of  
4 the Treasury.

5 Far more fundamental than the location  
6 of SEFA are the powers and authorities to be  
7 given to this new agency. A basic criterian  
8 for addressing the strength and effectiveness of  
9 such legislation is the degree to which it  
10 permits government to shed its reactive role  
11 and grasp the initiative in making basic  
12 judgements, such as the need and most desirable  
13 locations for energy facilities. I will return  
14 to focus on the issues of power and authority  
15 before the close of the statement. As now  
16 written, SEFA's primary thrust might appear  
17 to be to expedite large centralized facilities  
18 in so-called energy parks. Such clustered  
19 energy facilities may not in themselves be  
20 objectionable. Princeton's study of a hypo-  
21 thetical nuclear energy center in Ocean County  
22 questioned strikingly such a concept on a very  
23 large scale of twenty clustered reactors but  
24 did find some merit in the concept in general  
25 on a smaller scale, as an alternative to

1           disbursed siting with its multiplied infra  
2           structure strains. If a large number of  
3           energy facilities are indeed to be located  
4           in a small densely populated State like New  
5           Jersey, clustered siting may be preferable  
6           to locating the same number of plants at  
7           disbursed locations throughout the State.

8           However, I would focus, as many of the people  
9           this morning did, on the importance of  
10          conservation and demand reduction rather than  
11          simply focusing on increasing numbers of  
12          energy facilities. I must join with Dr.  
13          Abrams, among others, in registering an  
14          objection to the use of the term energy parks  
15          throughout the proposed statutes. It's a  
16          term that was used early on in the studies  
17          in which I was involved with the nuclear  
18          regulatory commission, and I rejected in my  
19          own work. These facilities may indeed prove  
20          necessary for society -- though I personally  
21          doubt it -- but the term park connotes a  
22          bucolic environment hardly likely to characterize  
23          such a facility. May I suggest that the  
24          statute be amended to include the term energy  
25          clusters or energy centers, instead of

1 energy parks.

2 As for buffer zones, the provision  
3 for buffer zones around major energy facilities  
4 including energy clusters, is deeply needed;  
5 and you are to be encouraged to push for  
6 inclusion for this concept in the Bill. My  
7 research on nuclear energy centers has focused  
8 on the importance of using a buffer zone to  
9 keep such facilities at arm's length from the  
10 society which they are designed to serve.

11 In addition, my present research on the situation  
12 with respect to residential developing in the  
13 immediate vicinity of the Oyster Creek Nuclear  
14 Power Plant in Ocean County illustrates the  
15 need for effective buffer zones -- enforced  
16 by the State, if necessary -- even around  
17 single energy facilities, like a single  
18 reactor. In the absence of an effective  
19 buffer zone at Oyster Creek, the number of  
20 residential dwellings within four miles of  
21 this plant has tripled in the period from  
22 1965 when the plant was first approved by  
23 the Atomic Energy Commission and 1976, going  
24 from 3,162 dwellings to 9,507 in this ten  
25 year period. This shows what can happen if

1           the State does not act to prevent growth in  
2           the immediate vicinity of energy facilities.  
3           I have comments which I will not make at this  
4           time on the composition of SEFA, on the public  
5           participation and on funding of SEFA and the  
6           controversies between the fee schedule called  
7           for in the Bill as it now stands and the  
8           approach, for example, in Maryland's power  
9           plant siting Bill where a surcharge on  
10          electricity provides much more in the way of  
11          financial resources than are likely to be made  
12          available through the fee schedule.

13           The issue of taxes, I fear, is one  
14          which we must address. If clustered siting  
15          strategies are followed, a close look must be  
16          taken in New Jersey at the allocation of  
17          revenues from the gross receipts and franchise  
18          taxes, and of traditional property tax  
19          payments from energy facilities owned by  
20          private corporations, rather than regulated  
21          utilities. Since the SEFA legislation includes  
22          both regulated facilities and non-regulation,  
23          oil facilities, for example. A cluster, by  
24          definition, concentrates these facilities in  
25          a few municipalities. Tax revenues must be

1                   allocated more broadly if the clustered  
2                   siting concept is to be accepted by the  
3                   public at large. Should the State adopt a  
4                   clustered siting strategy, provisions for  
5                   tax sharing across municipal boundaries  
6                   become far more critical. Without new tax  
7                   legislation -- however controversial this  
8                   may be in today's political environment in  
9                   New Jersey -- the imbalance between costs  
10                  and benefits will be far greater. One needs  
11                  to point only to the case of Lower Alloways  
12                  Creek where in the early 1980s some ten  
13                  million dollars from the gross receipts of  
14                  franchise taxes will be accruing to some  
15                  fourteen hundred individuals, men, women and  
16                  children. Divided out it comes to over  
17                  seven thousand dollars per person per year  
18                  and looks like Abudoui or Kuwait. How long  
19                  will we tolerate such a system? How long  
20                  until the people of the State of New Jersey  
21                  tolerate a clustered siting strategy if what  
22                  comes with it is this kind of clustered tax  
23                  benefits. Let me turn now to the issue  
24                  raised I thought rather eloquently today,  
25                  by Hazel Gluck of Ocean County in respect to

1 State versus local authority over energy  
2 facilities siting. Miss Gluck talked about  
3 the destiny of Ocean County and the the degree  
4 to which Ocean County would have its own  
5 destiny. I felt at that time as though in  
6 a way she had been looking at some of my own  
7 work, because I think this is a very important  
8 feature, both with respect to New Jersey as  
9 a State, vis a vis the question of federal  
10 pre-emption and with respect to our counties  
11 and municipalities with respect to State  
12 pre-emption. As conceived, SEFA's powers  
13 appear to be as strong as any granted to  
14 State governments in energy facility siting  
15 anywhere in the country. For example, several  
16 State siting agencies have no local override  
17 at all, and other share in their powers  
18 equally with other State agencies. In contrast,  
19 SEFA, as proposed, would be completely  
20 autonomous both horizontally and vertically.  
21 In order to gain acceptance and achieve its  
22 valuable goal in State initiative, amendments  
23 to SEFA proposals should be considered to  
24 grant other levels of government a greater  
25 role in the siting decision-making process,

than is the case with the legislation now proposed. I am concerned about the degree to which SEFA would have total authority over approval or denial of proposed energy facilities, overriding the authority of all other State agencies and of county and municipal governments. Obviously, the intent of this one stop permitting is to insure timely, efficient regulatory action on all needed energy facilities. Such organizational efficiency is a laudatory goal, but we need to remember that the issues of energy are not the same as designing a shopping center for one stop shopping. Equity, legitimacy and political participation are other important issues which we neglect in any political process --including in my view, the New Jersey political process --only at our long-term peril.

In particular, I would encourage this committee to reassess the concept of overriding all roles for county and municipal government in energy facility siting. In my opinion, a balanced siting process could be devised which would combine efficiency, equity and participation, accomplishing the

1 same objectives which you have in mind for  
2 SEFA without risking the alienation of those  
3 people who feel that they have lost control  
4 over their own local government to faceless  
5 bureaucrats in Trenton. Moreover I suspect  
6 that providing such a balanced approach to  
7 siting approval in the Bill would ease passage  
8 of this controversial legislation, especially  
9 in a gubernatorial election year, an objective  
10 not to be ignored. The process I have in  
11 mind would proceed as follows -- and I will  
12 only give a general overview rather than the  
13 kinds of details which could work -- SEFA  
14 would complete its State-wide energy facilities  
15 plant as in the Bill at present. When a company  
16 was ready to construct their new facility,  
17 either at locations included in the plan or  
18 not, their construction proposals would be  
19 submitted for initial review to the appropriate  
20 local government in that area -- under present  
21 New Jersey law, this would be the municipality.  
22 I do believe a shift to county level for  
23 major energy facilities would seem preferable.  
24 This action would give the local government  
25 and its citizens the right of first refusal

for an energy facility proposed within their boundaries, thereby enhancing the degree of meaningful public participation in this decision and expanding the overall legitimacy of the siting process. Specific time deadlines could be established in the State legislation so that the locality would reach its decision without undue delay. If the proposed energy facility were located at a site or energy cluster area previously approved by SEFA, local approval could be followed rapidly by State approval. SEFA, along with other State agencies would simply have to determine that this facility at that location met the appropriate environmental standards.

If the local government, however, chose to reject the energy facility, for whatever reason, a balanced siting process would not stop there. It would not be a total veto, but a right of first refusal -- a balanced siting process would allow for State override of this local decision on the basis that the facility was of State-wide significance. However, in my view, it might be preferable to restrict use of this positive

1 authority at the State level to the legislature  
2 rather than to SEFA in the Executive Branch.  
3 This would help to insure use of an open,  
4 participant political process in reaching this  
5 important decision to override the wishes of  
6 the local community and would with respect  
7 to their own energy destiny and would provide  
8 local residents with full access to a decision  
9 which would affect them so directly. Frequently  
10 the public hearings process of Executive  
11 Branch agencies is woefully inadequate in this  
12 regard. Again, I believe a time deadline  
13 could be imposed for State action. An  
14 alternative approach to involving the  
15 legislature directly is to allow SEFA to  
16 override local rejection of proposed sites,  
17 if needed, but only in those locations  
18 stipulated in the State-wide SEFA plan, which,  
19 under 1407 would have to be approved by the  
20 legislature.

21 This concept rejects the idea of the  
22 local veto for energy facilities, because  
23 parochialism cannot be left unchallenged in  
24 this important area for all of us. At the  
25 same time, it rejects a total pre-emptory State

override, now in the proposed legislation, giving local governments a genuine initial role in the siting process and it limits State positive authority so that it will be used only in cases of true State-wide significance. Efficiency, equity and participation can be combined, and in doing so will enhance passing of this legislation and would create a more legitimate siting process.

Let me close with just a few comments on the other two Bills we've been asked to address today, S-1721 and S-1494 on nuclear reassessment. The slowing or holding of nuclear power development in New Jersey must be seen in the context of a total State energy strategy. A strategy not only about the other supplies, of energy, the other ways to produce electricity, such as coal as we heard this morning, but strategy more broadly defined, including vigorous pursuit of energy conservation at the heart of a State strategy and use of alternate uses of energy and electricity, such as cogeneration of electricity with industrial process steam and solar heating and cooling in the immediate

1 period. To hear as we heard this morning that  
2 the all-electric home still makes sense for  
3 heating and cooling is the fly in the face of  
4 everything we know in the range of the fourth  
5 right research now being done. Given such a  
6 strategy, it seems to me the need for nuclear  
7 facilities in New Jersey will diminish  
8 dramatically. Conservation, by which I mean  
9 energy efficiency, not energy abstinence,  
10 is still our best energy producer. Given this  
11 prospective, both S-1491 and S-1721 based on  
12 similar measures in California have merit and  
13 are deserving of support. We need to know  
14 as was done this morning that a principle  
15 objective of 1494 is a waiver of the Price-  
16 Anderson Act which limits the financial  
17 liability of utility companies for nuclear  
18 accidents. A federal court decision last  
19 week struck down Price-Anderson as an un-  
20 constitutional deprivation of property without  
21 due process of law and throws this issue open  
22 again. It illustrates the state of events at  
23 a national level with respect to Price-Anderson  
24 and further endorses the importance of the kind  
25 of provisions in the proposed State statute.

1 These concerns about nuclear energy illustrate  
2 several basic questions facing most States,  
3 including New Jersey. To what extent will they  
4 become dependent on nuclear energy? To what  
5 degree is this dependence acceptable to the  
6 people of New Jersey? How can we begin to  
7 implement viable alternatives? And, can a  
8 State control its own destiny in this regard?  
9 Or are we dependent on the federal nuclear  
10 regulatory commission and its pre-emption?  
11 Let me turn to the issue, briefly, of federal  
12 pre-emption in closing. The federal pre-  
13 emption issue is a very important one. But  
14 in my view we need not and ought not to  
15 be mesmerized by concern without federal  
16 pre-emption. There are times when we must  
17 pass the kind of legislation we believe is  
18 needed by our own State and then let the  
19 courts decide whether or not it will be  
20 pre-empted and not try to escape that federal  
21 pre-emption from the beginning, because in  
22 the process it seems to me some very difficult  
23 and dangerous things happen. If the public  
24 at large is going to have any hope of meaningful  
25 participation in the energy debate and it

1       is a complicated debate, including on-siting  
2       quesitons, at times we must avoid the issue  
3       of federal pre-emption and just go right ahead.  
4       California referendum item last year --  
5       Proposition 15 -- was almost unintelligible  
6       to all of us -- and if need be, I can provide  
7       a copy for you -- almost unintelligible,  
8       because its sponsors were attempting to avoid  
9       federal pre-emption. No wonder 40 percent  
10      of the voters chose across the 7 referendum  
11      not to approve such a Bill. The choice of  
12      language surely caused many votes. No one  
13      of sound mind and body would feel very happy  
14      about voting for that referendum. No one  
15      could understand it. In contrast, the  
16      Atlantic County Freeholders chose to use  
17      simple language in the November, 1974 referendum  
18      item. Quote: Do you want a floating nuclear  
19      power plant located in the Atlantic Ocean  
20      off the cost of Atlantic County? Unquote.  
21      Do you want it or don't you? Faced with  
22      responding to a clear question, rather than  
23      to the verbose confusion involved in avoiding  
24      federal pre-emption in California, these  
25      people of Atlantic County voted no by a two to

1 one margin. I encourage your use of such  
2 clear language in these various energy Bills,  
3 including in the area of nuclear energy where  
4 the Norther States Power decision on radiation  
5 standards and the Baily Decision and so on  
6 suggests eye levels of federal pre-emption.  
7 So be it, but let's go ahead so that the  
8 public knows what's going on, so they can  
9 understand what we're saying in these various  
10 statutes and Bills and referenda items. In  
11 conclusion, addressing the overall subject  
12 of energy facility siting, we must conclude  
13 that the development of an overall State  
14 strategy remains imperative. This strategy  
15 must set out our State's objectives as the  
16 basis for implementation of coordinated  
17 regulatory actions. Until our goals as a  
18 State are made clear with respect to electricity--  
19 nuclear or not, with respect to cogeneration  
20 or not, with respect to CS, on shore facilities  
21 siting, with respect to liquified natural  
22 gas, until our goals are made clear, government  
23 decision makers, representatives of the energy  
24 companies and members of the general public  
25 cannot avoid confusion and uncertainty. And

1           in such a situation, otherwise avoidable  
2           impacts of undesirable facility sitings  
3           cannot be escaped. Development of this State  
4           siting strategy requires forceful political  
5           leadership -- to date notable by its absence  
6           in this State. Perhaps all the gubernatorial  
7           candidates from both major political parties  
8           can be urged to articulate their views of a  
9           preferred State strategy to cope with siting  
10          impact, particularly addressing themselves  
11          to the nuclear issue. Each candidate should  
12          be asked to state the objectives to be sought  
13          and the overall State approach to the energy  
14          challenge which we face in this State. There  
15          are comments on State override authority  
16          over the wishes of local government versus  
17          a balanced siting process would be particularly  
18          useful in the political debate this year.  
19          These are all fundamentally political issues  
20          and the political process is the best forum  
21          for such goals to emerge.

22           MR. REIFER: Professor, you're not  
23          seriously suggesting, surely, that there's  
24          an analogy between 1974 referendum on the  
25          simple issue of do you wish an off shore

1           nuclear power plant on your shores of Atlantic  
2           County; you're not seriously drawing an  
3           analogy between that and a question which  
4           seeks to impose upon the nuclear facilities  
5           certain stringent safety measures which are  
6           not specific site related?

7           DR. MORELL: Of course --

8           MR. REIFER: It is very simple to  
9           raise the question do you want a nuclear  
10          facility and the answer to that will almost  
11          surely be no almost everywhere.

12          DR. MORELL: Not everywhere; almost  
13          everywhere. I would recommend -- I'm seriously  
14          making this comparison, of course, to make  
15          the comparison particularly about language  
16          which is the reason which the Warren Committee  
17          in California first developed the three  
18          measures which you put together in the Bill,  
19          the measures on reprocessing, on underground  
20          construction and berm containment, and on the  
21          Price-Anderson indemnity waiver, was in my  
22          view, fundamental to avoid the issue of pre-  
23          emption, to avoid taking a stand in a clear  
24          referendum item which I would be happy to see  
25          on a ballot in this State, which could be

1 traced either in terms of do you want any  
2 further nuclear power plants in New Jersey  
3 or not, or even at a more basic level, do  
4 you feel that we ought to have the right in  
5 this State to make that choice, yes or no.  
6 It is very fundamentally the State's right,  
7 and at the sub-State level a home rule question.  
8 Do we have the right to make that decision  
9 ourselves as citizens of the State or are we  
10 dependent on others in the national union  
11 to make that decision, perhaps against our  
12 will. That's the fundamental issue to me and  
13 there are ways to phrase that very clearly  
14 so that almost everyone walking in and closing  
15 the curtain behind them in a November election  
16 could understand it. And I'm suggesting that  
17 with the greatest possible seriousness.  
18 I don't think one voter in a thousand in this  
19 State understands the implications of Price-  
20 Anderson, of berm containment, of reprocessing  
21 and the national issues involved in re-  
22 processing the plutonium connection. I under-  
23 stand it only superficially myself, and I've  
24 been connected with this for several years.  
25 I do understand and I think almost everyone

1           in this State will understand a clear question,  
2           do you think we ought to have the right to  
3           make this decision ourselves or not? Or a  
4           clear question about do you think we should  
5           have more nuclear power plants in New Jersey?  
6           Or, should we produce our own electricity by  
7           alternate means? I'm very serious about it.

8           MR. REIFER: Professor, you suggested  
9           one alternate means of involving local govern-  
10          ment. What suggested to Mrs. Gluck this  
11          morning another alternative, other variant  
12          of that and perhaps to refresh your memory  
13          on that, that would have either the counties  
14          or a regional, a group of counties themselves  
15          proposing what an energy facility siting  
16          plan might be and then submitting that plan  
17          to a State agency for State agency review,  
18          and either approval or modification or rejection.  
19          It appeared -- and I hope I'm not doing her  
20          an injustice -- it appeared to Mrs. Gluck  
21          at that time just being confronted with that  
22          alternative that that would provide for  
23          meaningful local input compared to the alternative  
24          that you suggest. Do you see any merits in  
25          this local initiation rather than local response

1 to something that was initiated at a higher  
2 level?

3 DR. MORELL: There are, of course,  
4 some strong merits to that, but I think the  
5 real distinction mark between what I'm  
6 proposing and what Mrs. Gluck was at least  
7 responding to, was in the question are we  
8 talking about planning, energy planning? Or  
9 are we talking about facility siting? The  
10 selection of a specific site for specific kind  
11 of facility. I think what we need in this  
12 State at the State level is serious aggressive  
13 energy planning, which is one of the very best  
14 things in S1407, that we are for the first  
15 time talking about preparing several energy  
16 plans, oil, gas, coal, nuclear, large, small,  
17 north, south -- to fragment that planning  
18 concept into a series of county plans or tri-  
19 county plans is to miss the point about a  
20 basic strategy that would deal with such issues  
21 as ten years from now how dependent are we  
22 going to be on nuclear energy, how about what's  
23 the potential for cogeneration? What are  
24 we dealing with in terms of on shore impacts  
25 of OCS oil and gas? Can we cluster those in

1 such a way to keep them away from our other  
2 places. That's got to be done, it seems to  
3 me, at a State level, not tri-county or county  
4 level. When you get to the question where  
5 counties and particularly local governments  
6 have been well suited for years, land use  
7 decisions, saying yes or not to somebody's  
8 proposal to build something on a piece of  
9 land, that's where I think the local government  
10 can play a major role. But a major initial  
11 role, not a final and absolute veto. That is  
12 so that the real distinction here is between  
13 a planning role and a decision-making role  
14 on specific sites, and though the counties  
15 do some good planning in this State at the  
16 moment -- in some ways better than the State --  
17 but I think what we're talking about has got  
18 to be a State focus, a State coal strategy.  
19 Where are we going with coal in this State?  
20 Nobody knows yet. That's got to be on a State  
21 level. And then the counties and local  
22 governments need to fit into individual siting  
23 decisions which relate to carrying out a clear  
24 articulated State strategy.

25 SENATOR McGAHN: Thank you, Dr., very

1 much for your articulate discussion, and as  
2 always, you're right on the point.

3 DR. MORELL: Thank you, Senator.

4 SENATOR McGAHN: Mr. Leon Avakian.

5 MR. AVAKIAN: Mr. Chairman, ladies  
6 and gentlemen, I'm here as a representative  
7 of the New Jersey Society of Professional  
8 Engineers. I come as the President elect,  
9 and I've presented the Committee with our  
10 statement. But I believe that a brief pre-  
11 liminary statement is in order, which I'll  
12 read and it will take no more than two minutes.

13 The New Jersey Society of Professional  
14 Engineers (NJSPE) as well as the National  
15 Society of Professional Engineers ( NSPE )  
16 have expressed their opinions for an orderly,  
17 logical and factual approach to the myriad  
18 of problems and concerns facing the citizens  
19 of our State and our nation today.

20 Statements supporting the need for  
21 providing clean, safe and economic electric  
22 energy with nuclear power were presented at  
23 the public hearing on offshore nuclear power  
24 plants in Atlantic City, New Jersey on  
25 March 29, 1976 and at the Senior Conference on

1 Energy in North Wildwood on May 16-18, 1976.  
2 A resolution by NJSPE was also submitted to  
3 the New Jersey Legislature in May 1976. These  
4 documents emphasize that an adequate supply of  
5 electricity is necessary to provide energy  
6 for supporting the continued growth and economic  
7 stability of New Jersey.

8 The NJSPE is dedicated to providing  
9 the professional guidance for the benefit of  
10 all the citizens of New Jersey. A well informed  
11 and cooperative citizenry is necessary to keep  
12 our State and country strong and free.

13 We, hereby submit the attached  
14 position papers in support of nuclear power for  
15 New Jersey into the hearing testimony taken  
16 by the Senate Hearing Committee on Senate  
17 Bill S1494, the "Nuclear Reassessment Act" and  
18 Senate Bill S1721, a supplement to "An Act  
19 establishing the State Energy Facility Agency..."  
20 presently pending as Senate Bill 1407. Both  
21 of these Bills, in our opinion, will have the  
22 practical effect of outlawing the construction  
23 of future nuclear electric generating facilities  
24 in New Jersey as well as derating of those  
25 nuclear plants which are presently operating.

1           We urge the vigorous development of nuclear  
2           power for New Jersey and the cessation of  
3           legislation which deters the orderly, safe and  
4           expeditious energy supply for New Jersey.

5           We hope that your conclusions will  
6           result in a favorable position for nuclear  
7           power and appreciate the opportunity to submit  
8           our statements to you.

9           In closing, I would offer to add,  
10          gentlemen, that I would offer to provide to  
11          the State the high level of expertise of the  
12          membership of the New Jersey Society of  
13          Professional Engineers in working toward a  
14          solution to these matters and, in particular,  
15          I would suggest that in my opinion the public  
16          would be best served, if, upon the establishment  
17          of the agency, at least two of the public  
18          members were licensed professional engineers  
19          of the State of New Jersey.      Thank you.

20           SENATOR McGAHN:    Thank you very much.

21           MR. AVAKIAN:    I was just asked a  
22          question here.  Our membership in the State  
23          is 3300, representing 17,000 engineers,  
24          professional engineers.

25           SENATOR McGAHN:    Thank you very much.

1 Freeholder Vincent Fusilli is absent. Mr.  
2 Marciante is also absent. At this time I'll  
3 call on Dr. Lynn Stiles, who will be speaking  
4 for Carl Valore, Dr. Lynn Stiles of Stockton  
5 College.

6 DR. STILES: I don't have prepared  
7 statements, because at the last minute Carl  
8 Valore couldn't make it today, so I'll try  
9 and be brief and first I'd like to outline  
10 my credentials to help in your assessment.  
11 I hold a PHD in physics from Cornell University.  
12 I was research physicist at E.I. DuPont from  
13 '69 to '73, and presently associate professor  
14 of physics at Stockton State College. And  
15 I'm director of technical assessment for  
16 Atlantic County and principally, I'm speaking  
17 as the director of technical assessment today,  
18 and specifically, with a background that I've  
19 had in assessing the environmental impact  
20 statement for the proposed offshore power  
21 system floating nuclear power plants. I will  
22 address myself first and primarily for the  
23 needs of the Bills being proposed today. And  
24 I will minimize my comments about the structure  
25 of the proposal. Earlier today we had heard

from two gentlement from G.E. and Westinghouse,  
two people who have vested interests in these  
matters, and I wanted to address some of the  
points that they made this morning. One is  
that the technical community is definitely  
split on this issue and I don't know where the  
number 500,000 to 100 came from, but I do  
know as a member of the Federation of American  
Scientists that a residence poll was conducted  
and that there was no question that the member-  
ship was about evenly split on the issue of  
the moratorium. This I think is my experience  
throughout the country as I travel, that  
there are some concerns about whether we need  
the energy and at the same time the safety  
and it is interesting because the split is  
something like the split that one finds in  
the street if you took a poll not knowing the  
background of people, my experience is that  
it is about the same.

And that pretty much from my perspective  
indicates the injection of human values into  
the decision and I'll address that later.  
Perhaps a much bigger concern that the scientific  
community has indicated is that of nuclear

1 proliferation. President Carter has addressed  
2 this. I think it's clear. And I think  
3 related to the breeder program and/or re-  
4 processing and we're not really addressing  
5 these questions today. However, it's clear  
6 that the federal government is going to be  
7 addressing these considerations and it makes  
8 sense for us to wait to see what the federal  
9 decision is going to be. Second, that nuclear  
10 power is not different than other sources  
11 ~~U. ENERGY WAS THE POSITION TAKEN THIS MORNING~~  
12 in the sense that it ought to be considered  
13 in the same context with other energy,  
14 especially electrical energy sources. There  
15 is a definite distinction between nuclear  
16 power and other sources and it relates basically  
17 to the size of the potential accident. Nuclear  
18 energy power plants have a potential to do  
19 far more damage, both human and property than  
20 any other energy source. For example, I'm  
21 interested in the floating nuclear power  
22 plant. If the core material from the two  
23 floating nuclear power plants did get into  
24 the liquid pathway, that is, the ocean, then  
25 we would look forward to the beaches being

1 contaminated for a period of time on the order  
2 of 100 years; that is, we would not be able  
3 to use the beaches in this vicinity for 100  
4 years. The NRC hearings now are addressing  
5 the questions that relate to the probability  
6 that such an accident should occur, but not  
7 all of them. One issue is the turbine over-  
8 speed problem and the possibility that this  
9 would result in a meltdown; but there are some  
10 issues that aren't being addressed at those  
11 NRC hearings and can't be addressed by the  
12 intervenors. One of the possibilities of  
13 sabotage from external sources. Now, for a  
14 land-based plant this may not be as serious,  
15 but just consider the floating nuclear power  
16 plant and its susceptibility to this. The  
17 Class 9 accident is another, that is, the  
18 simple meltdown -- simple -- the meltdown  
19 at the core entering the environment through  
20 predetermined probabilities of one in a billion  
21 and one in a million, the numbers that we  
22 often hear about. That can't be addressed  
23 in these hearings. Waste disposal can't be  
24 addressed in the hearings. The safety of  
25 the emergency core cooling system can't be

1 addressed in the hearings and I can go on. Now,  
2 are we going to rely on a process that ties  
3 our hands behind our backs in determining  
4 whether or not the plant should be built,  
5 or in New Jersey should we determine it our-  
6 selves or to what extent should we? Finally,  
7 there is a definite difference between the  
8 floating nuclear power plant and the land-based  
9 plant. This question was raised earlier this  
10 morning. For example, although the reactor  
11 is basically the same designed reactor that  
12 is used in Westinghouse land-based plants,  
13 the support isn't even fully designed yet,  
14 whether it is going to be supported on a  
15 helical spring or not or what the dimensions  
16 of those springs are and so on, haven't been  
17 designed. A plant has never been mounted on  
18 helical springs. The fact that it is on a  
19 barge which rocks is different than a land-  
20 based plant. As a matter of fact, the system  
21 of a floating nuclear power plant on the size  
22 and order and magnitude that is being planned  
23 here hasn't been built, hasn't been tested  
24 as a system and there's a difference between  
25 the two. I'll not go into the details of the

1           differences, however, I want to point out that  
2           the hearings now being conducted are presumably  
3           looking at those differences.

4           The energy planning from my perspective  
5           has been minimal in the past, both on the  
6           federal and State level, and there's a definite  
7           need -- I think this has been brought out  
8           several times this morning and so I won't  
9           dwell on it -- but there's a definite need  
10          to look at energy production use and need as  
11          a package and not on single individual processes  
12          of another plant being built here, coal or  
13          nuclear or whatever. So I strongly advocate  
14          that a planning process similar to the goal  
15          that's set forth in the Bill -- I lost the  
16          number here -- the 1404 -- that that process  
17          is very important one. Specifically, what's  
18          important is that the energy that will be  
19          produced from electrical generating plants,  
20          specifically nuclear power plants, will be  
21          consumed in New Jersey. The citizens will be  
22          the users; the citizens will bear the costs,  
23          both economically and environmentally, and  
24          therefore, it should be the citizens of New  
25          Jersey that make the decision and not the NRC

1           in Washington. Now, this is very important  
2           because the value, the human value element  
3           is very essential in this decision, and it is  
4           not a natural aspect of the hearing in  
5           Washington. The human value has been to a  
6           large extent removed in that process. When  
7           you ask someone do you want a nuclear power  
8           plant in your backyard and they say of course  
9           not, you know you're asking someone who's  
10           going to bear the highest risk. But how far  
11           does the backyard go? And I think that the  
12           backyard, you know, where we define the back-  
13           yard is important and so I don't think the  
14           backyard goes to Washington D.C. It may not  
15           even go to Trenton, and I think this is the  
16           reason why the desire for regional input,  
17           because we want the people who are gdng to  
18           bear the environmental costs and impact on  
19           the decision because we want to involve the  
20           human value in the decision and so I think  
21           this is a need that must be structured into  
22           the system and divorcing or taking this need  
23           beyond or taking it to Trenton is apparently  
24           too far, and that's what mostly concerns me  
25           this morning. I'll not go any further. I'll

1 just...

2 SENATOR McGAHN: Dr. Stiles, thank  
3 you very much. I have no questions.

4 Mr. Richard Eckert, Public Service  
5 Electric and Gas.

6 MR. ECKERT: Good afternoon, gentlemen.  
7 I have a complete prepared statement that I'll  
8 not read. I'll try to condense very dramatically  
9 this statement I've made here, but I'll leave  
10 this with whoever the appropriate party is.

11 I'm Richard Eckert. I am with  
12 Public Service Electric and Gas Company in  
13 Newark, and we are one of the major utilities  
14 throughout the State of New Jersey. As a  
15 public utility, we are mandated by the  
16 legislature and by the Utilities Commission  
17 to provide safe, adequate, reliable service  
18 at as low a cost as possible without doing  
19 undue harm to the environment. It is for  
20 this reason that we must proceed with many  
21 of our plans in order to make sure that our  
22 electric energy supply is adequate and is  
23 safe and is available when the citizens of  
24 the State require it. We have no bias for  
25 any particular technology. We look at all of

1           them. We look at oil and we look at gas and  
2           we've come to the conclusion that these are  
3           not in adequate supply for the future generation  
4           of electricity. These are premium fuels and  
5           we should be utilizing fuel which cannot  
6           readily be used for other purposes. We look  
7           at conservation and we are in favor of it and  
8           we look at the exotic forms of energy and we  
9           are in favor of them. But when you look at  
10          these you don't find adequate available  
11          capacity to solve the problems of the citizens  
12          of the State of New Jersey in the long run.  
13          So we find that we are down to looking at the  
14          alternates of coal and nuclear. We've been  
15          making studies for many years on these basic  
16          questions and the studies continually come  
17          out that the safest, the most economic and  
18          the least degrading system to the environment  
19          is nuclear plants, and this is a basic reason  
20          why we've been going the nuclear route for  
21          several years now. As far as the existing  
22          Bills are concerned, S1407 has been called  
23          one-stop licensing. Unfortunately, we consider  
24          it one additional stop in licensing. At  
25          the present time it takes us about 11 years to

1 build a large generating station. Of that  
2 11 years it takes about 6 years to actually  
3 build it and 5 years to obtain the licenses  
4 that are required. It seems like an unreasonable  
5 amount of time to get all these licenses.  
6 S1407 we believe, would increase that time  
7 significantly. There's a Bill very similar  
8 to this that's been adopted in New York State  
9 and in New York State the people tell us that  
10 it looks like it will add about four and a  
11 half years to the licensing cycle. Now,  
12 with escalation the way it is today, the cost  
13 of a major power plant will escalate one  
14 hundred million dollars per year, and if you  
15 add four and a half years to our cycle, we're  
16 adding four hundred fifty million dollars  
17 to the cost of the plant, which ultimately  
18 the consumer, the people in the State, must  
19 pay. As far as the 1494 Bill is concerned,  
20 this is a moratorium Bill because there's no  
21 way that we could ever satisfy the conditions  
22 that are written into this Bill. It has  
23 been mentioned earlier, this has been voted  
24 on in some States and in every case turned  
25 down. It removes the nuclear option from the

possible ways that we can produce power for  
the people in this State. The 1721 legislation  
is essentially identical to the California  
legislation and not very much different from  
the moratorium Bill. The latest word that  
we've gotten from the California State Energy  
Commission is that the earliest findings they  
could make would be 1978, which is two years  
after the Bill was passed and we heard this  
morning there's a good possibility it would  
be significantly longer than that. Here, again,  
we run into the problem of delay and the cost  
of delay at a hundred million dollars a year,  
a two year delay is two hundred million  
dollars. It must be paid for by the citizens  
of this State. My whole emphasis on this  
thing is delays are the most major problem  
that we have. Decisions must be made. One  
of the Bills would eliminate the nuclear option.  
We do not think that is wise for the people  
of the State because you lose the economic  
and improved results on the environment.

If the delays continue too long we  
will experience shortages in electrical energy.

1 When these shortages come along we will see  
2 problems that will make this past winter  
3 gas shortage seem mild, because we will see  
4 industrial plants not be able to employ their  
5 people, moving out of the State because of  
6 a lack of energy, or, as an alternate, moving  
7 out because of the high cost of energy. These  
8 are very important to the industrial areas of  
9 the State. We also can envision a lack of  
10 construction in commercial areas in the housing  
11 sector all because we don't have enough power.  
12 There's no way people can get additional  
13 electric service at so they cannot build. So  
14 unfortunately, we find that all of these Bills  
15 we have deep concern about, primarily from  
16 removing one of the good options that we have  
17 available to us, and secondly, because of the  
18 delay. Now, I'll stop at that point and be  
19 happy to respond to your questions.

20 MR. REIFER: You indicate that nuclear  
21 power is an option. Insofar as your own company  
22 is concerned, is it an option or is it the  
23 option, in your facility?

24 MR. ECKERT: It is necessary for us  
25 to make commitments where we're going 11 years

1           in advance because of the long lead time. So  
2           we have made the studies and made the commit-  
3           ments consistent with an 11-year lead time.  
4           Beyond that, no, we would look at each option  
5           as they came along.

6           MR. REIFER: But it is true to say  
7           no plant that you are designing now or thinking  
8           about now, no facility to meet any needs that  
9           you can reasonably project is to be any other  
10          than a nuclear facility?

11          MR. ECKERT: At the time our plans  
12          are nuclear facilities. Our ultimate aim is  
13          to produce about 50 percent with nuclear  
14          facilities.

15          MR. REIFER: So what you are saying  
16          then is if there was to be a moratorium placed  
17          on nuclear construction in New Jersey, at  
18          least so far as your utility is concerned,  
19          there would be no facility construction?

20          MR. ECKERT: If that's what the law  
21          requires, that's what would happen, correct.

22          MR. REIFER: I'm almost reluctant to  
23          ask this question, because it's personal. It's  
24          the sort of question that I suppose is best  
25          phrased by saying I understand that you're in

1           the business of selling electricity, and it's  
2           quite proper that you should be. That's not  
3           necessarily any more a vested interest --

4           MR. ECKERT: Someone has to be.

5           MR. RIEFER: Certainly. You're also  
6           a citizen. Your own feeling about nuclear  
7           energy and nuclear plants, perhaps is best  
8           expressed, what I'm trying to get at, would  
9           you want your daughter to live next to one?

10          MR. ECKERT: Yes, I would. I have  
11          no quibbles whatsoever about the safety of nuclear  
12          plants. I have been in the business for 20  
13          years. I'm not a newcomer in this and I'm  
14          very familiar with the so-called safety  
15          problems. I would have no hesitation about  
16          my family living near a nuclear plant.

17          SENATOR McGAHHN: How do you know he  
18          has a daughter?

19          MR. ECKERT: That's a good question.  
20          It so happens I have two daughters.

21          MR. RIEFER: I'll talk to you after  
22          the meeting.

23          MR. ECKERT: Both married.

24          MR. MATTEK: Your second basic point  
25          after the nuclear option point was made, the

1 point that something such as comprehensive  
2 State Energy Facility Siting Act would bring  
3 more delays to your industry. It seems to me  
4 that's almost in direct contradiction to the  
5 testimony of many other people who seem to  
6 think the concept of one-stop shopping would  
7 ram facilities down their throats and shorten  
8 the lead time necessary for the public utilities  
9 to get approval. Would you try to reconcile  
10 this?

11 MR. ECKERT: We were not basically  
12 opposed to one-stop siting. We don't think  
13 that this Bill, as written, would accomplish  
14 that.

15 MR. MATTEK: Where would the extra  
16 delay come in? You would not have to go to  
17 35 other permits. You would have to go to  
18 this one agency. You think this one agency  
19 would take that much longer in coming to the  
20 conclusion?

21 MR. ECKERT: One of the things that  
22 we need desparately is some time limit on  
23 how long these things can be considered before  
24 a decision is made. It is possible to be  
25 delayed indefinitely through the lack of a

1           decision. It would be far better to get a  
2           decision, no matter what it is, because the  
3           delay is a very expensive thing. We don't  
4           see built into this Bill as proposed any  
5           mechanism to reduce this delay.

6           MR. MATTEK: What kind of feeling  
7           do you have without a local review or a  
8           regional review to facilities; are you opposed  
9           in principle or do you feel there should be?

10          MR. ECKERT: I think there are ways  
11         it could be worked out and we'd be happy to  
12         work with you on this thing. But bear in mind,  
13         when we initially make our studies we make  
14         this information public and we identify  
15         several different locations and several different  
16         types of plants that could do the job.

17          Now, this is very, very early in the licensing  
18         cycle. The history of the situation has been  
19         that nothing happened, except on a federal  
20         level for literally years, and then suddenly  
21         things begin to happen. But we've lost a  
22         good deal of valuable time. When we make  
23         these things public, it's conceivable that  
24         these could be reviewed on a State level with  
25         regional input because this would identify the

possible locations or even other possible locations put in. It would identify the exact locations that we're talking about. I could see where, by getting to work on it right away with a responsible group, that decisions could be made and we should be able to cut literally years off this long lead time that I'm referring to. I think it could be done on a local basis or regional basis. The need to make sure there is a decision made because otherwise we would be faced with energy shortages in the future. It's inevitable.

SENATOR McGAHN: Mr. Eckert, let me address myself to the total energy picture in New Jersey for the next ten or next twenty years. What is your projected rate of energy increase over the next ten or next twenty years? You are using what figure, four and a half percent a year?

MR. ECKERT: It's a little bit below four percent. I don't have the exact number with me.

SENATOR McGAHN: Okay, fine. Now, assuming that's the case, assuming within a

1           ten-year period of time energy requirements  
2           are not doubled, if we kept below that level,  
3           the various conservation measures, with various  
4           other alternative forms of energy, could you  
5           make some comment concerning what you think  
6           the impact of this would be upon electrical  
7           generation, via nuclear power and, frankly,  
8           is it feasible within the next ten years or  
9           within the next twenty-year period of time?

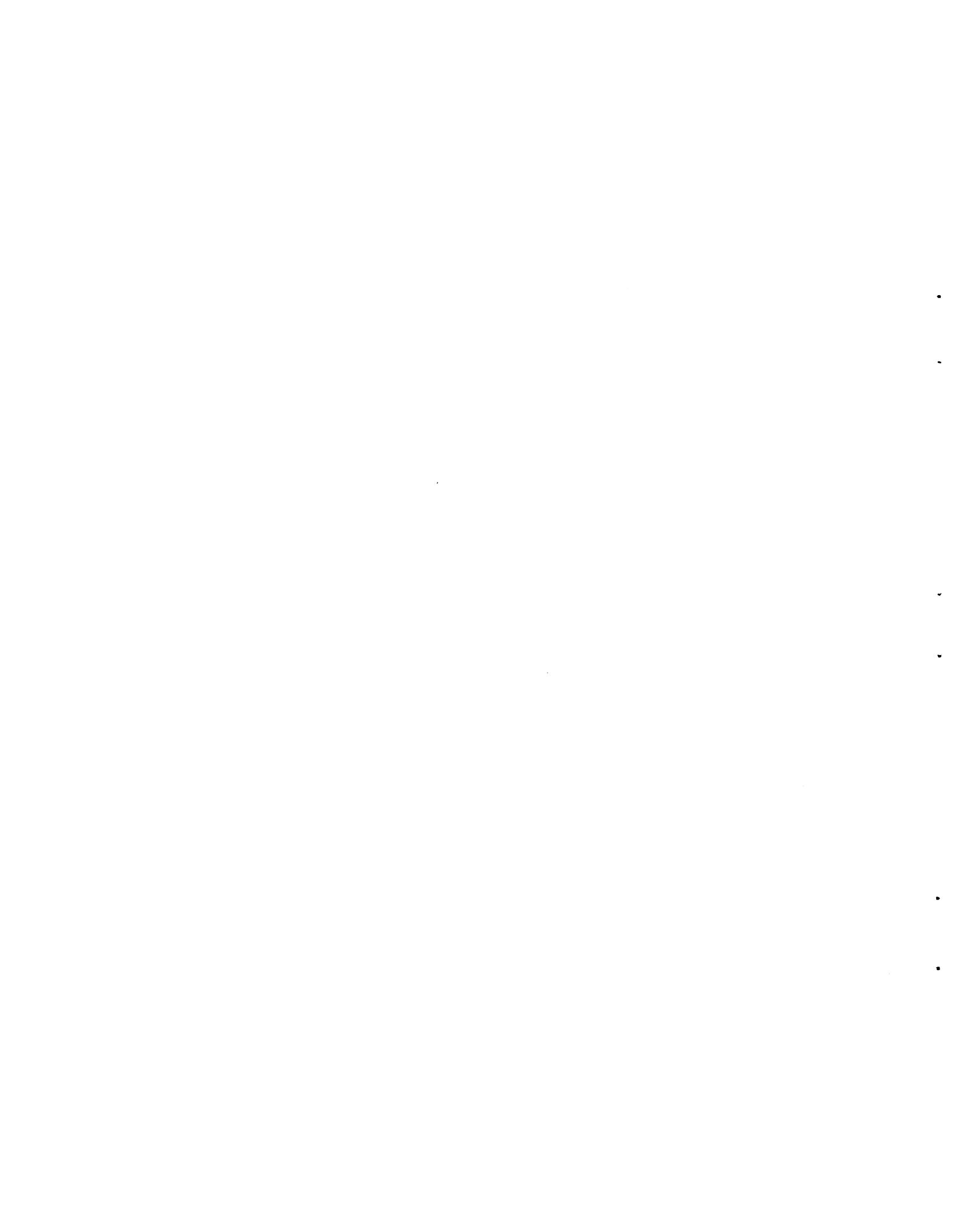
10           MR. ECKERT: You're asking for in-  
11           formation I really can't --

12           SENATOR McGAHN: Let me start out by  
13           saying, basically, this morning in the newspaper  
14           Governor Byrne came out -- or Chuck Richman  
15           came out in initiating a conservation program  
16           in New Jersey which theoretically, of course,  
17           could save 6 percent of the energy and approxi-  
18           mately 50,000 barrels of oil per day. This  
19           6 percent off, if we can get total cooperation  
20           from everybody in the State, utility companies  
21           and the people as far as home insulation is  
22           concerned and electronic pilots on the gas  
23           ranges and heaters, do you have any idea of  
24           what the impact of solar energy would be as  
25           far as -- should I say hot water generation and

1 do have two coal generating stations in  
2 Pennsylvania and has any consideration been  
3 given to this at any particular time, to  
4 expanding these facilities to generate more  
5 power because you're right at the source and  
6 certainly New Jersey would not be exposed to  
7 air pollution from that particular standpoint.  
8 Could this be done and could this be done  
9 competitively with the price of nuclear genera-  
10 tion of electricity?

11 MR. ECKERT: Could it be done? Yes.  
12 Many things could be done. Could it be done  
13 competitively with what we have proposed?  
14 No. The basic reason is that nuclear fuel  
15 costs thirty cents. Coal in Pennsylvania  
16 costs a dollar eighty per unit, same units.  
17 So you have a tremendous increase in fuel  
18 costs, so the economics do not prove out  
19 additional plants on the coal mines.

20 SENATOR McGAHN: I can realize  
21 this at this point in time, and I can realize  
22 that the ERDA studies show this. However,  
23 as I sit here I'm not totally convinced  
24 there's not going to come a point in time five  
25 or six or seven years down the line that all



1 space heating is concerned and other alternate  
2 sources of energy?

3 MR. ECKERT: If you look at the total  
4 energy usage you find that home heating  
5 utilities, commercial and home heating represent  
6 something on the order of 16 percent of the  
7 total energy. And this is the area where  
8 hopefully solar energy will come into being.  
9 Now, we're talking about making some degree of  
10 input into 16 percent of the problem. It  
11 would be optimistic to say that within that  
12 many years you could get as much as 10 percent  
13 of the home heating on solar energy. We're  
14 talking 10 percent of 16 percent which is only  
15 1.6 percent of the problem. We don't see that  
16 that in itself is going to solve the problem.  
17 It can help, but we believe we have to do  
18 everything we can find in order to keep up  
19 with this problem.

20 SENATOR McGAHN: Assuming that the  
21 Carter administration is going to be placing  
22 more emphasis on the use of coal, has your  
23 company given any consideration to the  
24 burning of coal as an alternative, because  
25 it's my understanding that I think you already

1           the prices of all fuels are going to be  
2           competitive, and this is on the basis of one  
3           thousand BTUs. So, therefore, it's cheaper  
4           today. I don't know what it's going to be  
5           ten years hence.

6           All right. This morning I did ask  
7           several questions concerning the nuclear  
8           technology of offshore nuclear generating  
9           plants. My understanding was I was supposed  
10          to ask you these questions, because you're  
11          the father of this concept, and I didn't  
12          realize that. However, let me say again my  
13          understanding is that there are different  
14          safety factors involved in an offshore nuclear  
15          plant, floating plant than there would be  
16          on a land-based plant. Could you address your-  
17          self to that?

18           MR. ECKERT: First of all, the physical  
19          equipment is exactly the same. It's just  
20          repackaged. When you look at the extreme  
21          safety conditions, assuming the accidents are  
22          going to happen that statistically tell you  
23          they won't, nevertheless, you assume that they  
24          do, you run into some area where they're  
25          different. The NRC has been pushing very hard

1 to get the answer to what is the difference.  
2 They've concentrated on what was referred to  
3 this morning as the Class 9 accident, core  
4 melt accidents, what's the difference between  
5 land-based and floating plants? And in every  
6 case the results of their study indicates that  
7 a floating plant is at least as safe as the  
8 land-based plant and in some cases safer.  
9 They haven't completed these studies. One of  
10 the things that is still going on is this  
11 steam explosion question that Dr. Paulson  
12 was talking about this morning. The reason  
13 that that has not been completed yet is that  
14 is not the most severe accident you can have  
15 when you're speculating on the extreme  
16 accident. They have looked into more extreme  
17 accidents. They are now in the process of  
18 going in and looking at that specific case.  
19 But there is no reason to think that that's  
20 going to be worse than the more extreme  
21 accident.

22 SENATOR McGAHN: Let me address myself  
23 to something that has not been brought out  
24 prior to this time. I think the first time  
25 this was considered offshore, this was prior

1 to the time that casino gambling was passed  
2 for Atlantic City. With the onset of offshore  
3 drilling we anticipate there will be an increase  
4 in population, not only in Atlantic City,  
5 but in south Jersey as well. Therefore, the  
6 population figures projected at that time  
7 will no longer be valid. Let me go beyond  
8 that, because we have a controversy here in  
9 which informed people on both sides have taken  
10 different viewpoints concerning this thing,  
11 in which this to a large degree is an emotional  
12 and moral issue as well, and certainly you  
13 find people being deeply concerned about this.  
14 You mentioned steam explosion. Do you have  
15 any realization of what the impact of any type  
16 of accident out there, even though it is not  
17 a Class 9, would have upon the people wanting  
18 to come to Atlantic City or this area here?  
19 We can have, very frankly, displayed, if you  
20 will, what happened in Philadelphia with the  
21 Bellevue Strafford as a result of the legionaires  
22 desease. We're talking about human values.  
23 We're talking about something that's an unknown  
24 factor, and I think this is basically one of  
25 the most important things that we have to

1                   confront here. I think this is one of the  
2                   reasons why, frankly, the people in Atlantic  
3                   County had opposed nuclear generating plants.  
4                   Whether it's a feasible thing, whether it's  
5                   a practical solution to this or not, we still  
6                   are dealing with human emotions. We're  
7                   dealing with human factors. We're dealing  
8                   with human values. As long as we're dealing  
9                   with this, there still remains the basic  
10                  question -- and I think that certainly as  
11                  more things are brought out, as far as  
12                  evacuation plans in case of a particular  
13                  disaster, whatever the situation might be,  
14                  your track records, yes, I grant, on land-  
15                  based plants, are one thing. I think, however,  
16                  certainly what the people in Atlantic County  
17                  are saying, they would prefer to see the  
18                  first prototype of this off of Singapore or  
19                  Hong Kong, and not off of Atlantic City.

20                  Thank you very much, Mr. Eckert. I  
21                  have no further questions.

22                  MR. ECKERT: Thank you.

23                  SENATOR McGAHN: Mr. Ed Lloyd,

24                  representing Mr. Jon Mulroy.

25                  MR. LLOYD: I'm representing New

1 Jersey PIRG. Senator McGahn, again, my name  
2 is Edward Lloyd. I'm staff attorney for the  
3 New Jersey Public Interest Research Group.  
4 I'd like to thank the Committee for granting  
5 me the opportunity to present PIRG's position  
6 on these important pieces of legislation.

7 I have a very short statement here which I'd  
8 like to run through and make a few comments  
9 on some of the other things that have been  
10 said this morning and this afternoon. Two of  
11 the Bills being considered by the Committee  
12 today address the many unanswered questions  
13 concerning the use of nuclear technology to  
14 generate electricity. This Committee held  
15 two days of hearings on these questions almost  
16 a year ago to the day. At that time, PIRG  
17 presented over 50 pages of testimony and  
18 research detailing the serious safety and  
19 economic questions which the further prolifer-  
20 ation of nuclear power entailed. PIRG at  
21 that time called for a moratorium on nuclear  
22 power plants. We stand by that position today.  
23 The questions placed last year remain unanswered.  
24 The Nuclear Reassessment Act provides a vehicle  
25 to answer these questions. Nuclear power has

1           been widely debated, both before this Committee  
2           and before the public at large. It is time  
3           to vote. PIRG urges that S1494       be reported  
4           favorably out of this Committee for a vote  
5           on the senate floor.

6           I would just like to point out an  
7           additional comment on the question of moratorium.  
8           As Dr. Paulson, I think, correctly pointed out  
9           this morning, the effect of a moratorium at  
10          this time would not stop construction on any  
11          of the current plants in this State, and I  
12          think that recommends that now is a good time  
13          to take a four-year lapse and examine the  
14          serious questions that have been raised about  
15          nuclear power. S1721 also addresses the  
16          safety of nuclear power plants, but the Bill  
17          is fatally flawed in its unnecessary dependence  
18          upon the passage of S1407. I won't go into  
19          this any further since, Senator McGahn, this  
20          morning you indicated it can be severed and  
21          we would recommend that it be severed. Nor  
22          is 1721 as comprehensive as 1494. It neglects  
23          entirely the important issues of insurance  
24          against nuclear accidents, evacuation plans  
25          and safety systems in the plants themselves,

1 and all of these issues are covered by S1494.

2 S1721 is also flawed in requiring the  
3 legislature to act to override agency decisions  
4 on these matters in only 90 days. Given the  
5 hectic schedule of the legislature, 90 days  
6 is not sufficient time in which to adequately  
7 be consider these important matters. Moreover,  
8 the Bill places the burden of review on the  
9 legislature by permitting agency action to  
10 take effect in absence of legislative approval  
11 or reversal. A more appropriate method would  
12 be to require the legislature to take definitive  
13 action either affirming or reversing the  
14 agency within one year of an agency decision.  
15 This would allow the legislature adequate  
16 time for review and a sure thorough consideration  
17 of these questions. PIRG recommends that the  
18 mechanisms found in S1494 meet these require-  
19 ments and that the study of reprocessing and  
20 underground plants proposed in S1721 might  
21 readily be added to S1494 and the combined  
22 Bills then enacted.

23 Finally, S1407 purports to be an  
24 energy facility siting Bill which balances  
25 the need for environmental protection with

1           the need for energy. It is preposterous to  
2           even suggest that S1407 is concerned with  
3           environmental protection. It in effect,  
4           repeals every law enacted in the last decade  
5           dedicated to the preservation of the environment.  
6           It places our most valuable resources, our  
7           public parks, beaches and Riparian land up  
8           for grabs for energy development. The Bill  
9           is so broad it would include a gas station  
10          in definition of energy facility along with  
11          almost any other industry in the State. It  
12          overrides local zoning and it is in essence  
13          a blank check to industry to locate anywhere  
14          in the State. We'd just like to make one  
15          point here about the Riparian grant for the  
16          AGS. There was some discussion this morning  
17          that CAFRA would cover the location of the  
18          offshore plant and it would, but it would not  
19          address the issue of whether the Riparian  
20          lands upon which that plant would be built  
21          can be granted by the State. As it is,  
22          as I understand it, there is no authority for  
23          the State to lease or sell those lands to the  
24          utilities in order to build a plant. CAFRA  
25          does not include that authority.

1 SENATOR McGAHN: It is commonly  
2 believed by the Attorney General et al, that  
3 it would take action of the legislature to  
4 do that.

5 MR. LLOYD: That's my understanding.  
6 PIRG wholeheartedly supports the concept of  
7 energy planning and facilities siting agency  
8 and encourages such by the legislature but  
9 one-stop shopping does not mean a give-away  
10 of the State's resources to the energy  
11 industry. When a consumer fulfills all of  
12 his or her needs at today's shopping malls,  
13 she or he must still pay for those goods  
14 purchased. And the energy industry must also  
15 pay for the siting of facilities which the  
16 one-stop shopping energy agency would make  
17 available. The payment would take the form  
18 of meeting all existing environmental standards,  
19 preserving our parks and beaches and invaluable  
20 Riparian lands and developing an adequate  
21 environmental impact statement. The discount  
22 given to the energy industry, however, would  
23 be that all these permits could be obtained  
24 in one stop and that the State would expedite  
25 the selection of sites for new energy facilities.

1 PIRG cautions, however, that the agency which  
2 does the planning and the siting, should not  
3 be the same agency which makes the final  
4 determination on the permit. The planning  
5 siting function should be distinct from the  
6 review and permit decision-making function.  
7 There should also be monies allocated for  
8 public participation and public intervention  
9 in these proceedings as the FEA has recently  
10 permitted in their regulatory affairs. PIRG  
11 suggests that this Committee review the  
12 California and Maryland siting laws and agencies  
13 as examples of those which truly balance  
14 environmental and energy needs. In fact, repre-  
15 sentatives of the Maryland agency testified  
16 before the New Jersey Assembly Transportation  
17 and Communications Committee over two years  
18 ago concerning their operation. We recommend  
19 a transcript of that proceeding be reviewed  
20 by this Committee.

21 In conclusion, the events of the last  
22 year, including radiation leaks at the Salem  
23 plant and the forecast of greater probability  
24 of nuclear accidents at the Oyster Creek plant,  
25 punctuate the ongoing need for the analysis

1                   called for in S1494. We urge the immediate  
2                   enactment of this law and the redrafting of  
3                   1407 to assure compliance with existing State  
4                   environmental standards, preferably along  
5                   the lines of the Maryland and California laws.  
6                   Thank you.

7                   SENATOR McGAHN: Thank you very much  
8                   for your testimony. Mr. Paul Lander, Conserva-  
9                   tion Officer.

10                  Ladies and gentlemen, I realize that  
11                  there are still a number of witnesses to testify.  
12                  The hour is late. We will keep going until  
13                  seven o'clock when we are forced to close  
14                  because the stenographers will no longer be  
15                  here. I think that this panel is fully  
16                  cognizant of the objections to the Bill,  
17                  particularly as far as the Energy Facility  
18                  Siting Act is concerned. I would ask any  
19                  individual testifying, if you have a copy,  
20                  please present that to the stenographer and  
21                  attempt, if you will, to the best of your  
22                  ability, to confine your remarks within a  
23                  period of ten minutes. I do not want any  
24                  redundant statements that have been simply  
25                  articulated before.

1                   Is Mr. Paul Lander here?

2                   Mrs. Margaret Brezell.

3                   MS. BREZELL: Good afternoon. I'm  
4                   Margaret Brezell. I'm president of Stop  
5                   Nuclear Power, which is a local Atlantic  
6                   County organization, although we have member-  
7                   ship throughout the State and the nation. I  
8                   would like to commend this Committee for  
9                   addressing the need for energy policy in this  
10                  State. I would like to say that Stop Nuclear  
11                  Power is very much opposed to S1407 for any  
12                  number of reasons, but certainly that have  
13                  already been mentioned this afternoon, but  
14                  certainly one is that this Bill tends to  
15                  focus on highly centralized energy production.  
16                  It, therefore, overlooks decentralized sources  
17                  of energy, and therefore, it fragments the  
18                  energy policy that we ought to be going on  
19                  in the State at the State level. It overlooks  
20                  cogeneration as a source of energy. It  
21                  overlooks energy efficiency as a source of  
22                  energy. It overlooks solar energy as a source  
23                  of energy. It overlooks wind power as a  
24                  source of energy. It does not address these  
25

1 other sources of energy. It only addresses  
2 building new centralized power plants. Our  
3 recommendation is to make energy policy far  
4 more comprehensive through the present State  
5 Energy Office, which has already proven its  
6 effectiveness and its comprehensive approach  
7 to energy. We feel that the State Energy  
8 Office, as it is presently constructed, needs  
9 further funding and expansion of their staff.  
10 We support S1494 because, among other reasons,  
11 we feel it would free up large amounts of  
12 capital to be deployed into other sources of  
13 energy. Nuclear energy is, in our opinion,  
14 a major block to the development of all other  
15 sources of energy; cogeneration, energy  
16 efficiency, solar heating and cooling and  
17 wind power. I would like also to address  
18 a number of problems that have been brought  
19 up by other people this afternoon. We do  
20 need an adequate supply of energy for growth.  
21 Mr. Avakian has addressed this. But we do  
22 need to have that supply of energy be  
23 generated in the cheapest way possible. Quite  
24 counter to what the gentleman from PSE&G has  
25 told you, the nuclear energy is, in fact, not

the cheapest source of energy in New Jersey. According to reports which have been made for the Department of the Public Advocate by a very respected organization called Dubin-Bloom Associates, there are perhaps four -- at least four sources of energy in New Jersey now which are cheaper than nuclear power. However, the utility does not make as much money on investing in those sources of energy, and this is where the rub comes, you see. You would expect a utility company to make their investments so that they could produce power cheaply as possible; but unfortunately, that would be the kind of basic decision that any ordinary company in business would make. But unfortunately, a utility is not an ordinary company. It is a regulated monopoly, and by law, it is guaranteed a certain profit. Profit is based on their great base, which is mostly made up of their capital costs. So the greater the capital investment, the greater profit is allowed. Nuclear power plants are the most expensive for capital investment; so therefore, the utility is allowed to charge a greater percentage

1 of profit. And incidentally, our rates are  
2 also allowed to go up because of the nuclear  
3 power plants that they are building. There  
4 are at least, according to these various  
5 studies that have been done for the Department  
6 of Public Advocate, there are at least three  
7 studies that have been done by the Council  
8 of Economic Priorities by Dubin-Bloom  
9 Associates, and by a Professor Williams at  
10 Princeton, and these four sources of energy  
11 that are available right now in New Jersey  
12 are cheaper than nuclear power, not to the  
13 utility, but to us ratepayers and taxpayers,  
14 are, number one, energy efficiency. If you  
15 have a hole in your gas tank, would you  
16 believe the guy at the gas pump who was telling you  
17 you needed twice as much gas as you were  
18 using before or do you plug up the hole? This  
19 is the status that we in the United States  
20 are now in as far as energy consumption is  
21 concerned. We use twice as much energy as  
22 other societies in western Europe that have  
23 as high a standard of living as we do.  
24 Conservation or energy efficiency is the  
25 cheapest, biggest untapped source of energy

1 here in the United States, but it must be  
2 mandated by law. And I recommend to your  
3 organization, to your Committee that energy  
4 efficiency is the way to go. This can be  
5 three to twelve times cheaper than nuclear  
6 here in New Jersey, according to these studies.  
7 Cogeneration of electricity which is the  
8 recycling of waste industrial process steam  
9 has been found to be at least four to five  
10 times cheaper than nuclear energy. New Jersey  
11 is uniquely suited for this source of energy.  
12 Basically, it's plugging a generator into a  
13 manufacturing company that's using steam  
14 and then they just let it go up the chimney.  
15 To re-use that steam to generate electricity,  
16 as I say, this is four to five times cheaper  
17 than nuclear energy. And Jersey, especially  
18 north Jersey, is uniquely suited for this  
19 source of energy because of its high  
20 industrialization. Coal plants are cheaper  
21 than nuclear. There are several studies that  
22 have found this; that, for instance, the  
23 Council on Economic Priorities has found that  
24 coal plants in a typically, rather smaller,  
25 perhaps 800 megowatts rather than a 1000

1 megawatt size is more efficient, that those  
2 size coal plants are cheaper than nuclear,  
3 and they're likely to become more so because  
4 of the changing cost of fuel. In addition  
5 to that, coal takes eight years to bring on  
6 land as opposed to perhaps eight or ten years  
7 now for nuclear.

8 The fourth source of energy in New  
9 Jersey right now that is cheaper than nuclear  
10 is solar heating and cooling and I would  
11 recommend to this Committee to vigorously  
12 attack the problem of giving tax credits to  
13 encourage rapid development of solar heating  
14 and cooling as a source of energy. ERDA  
15 just a month ago came out with a statement  
16 that says -- a study that says solar is now  
17 cheaper than electric base heating, and within  
18 a few years will be cheaper than gas and coal  
19 and oil heating. Your payback is ten years  
20 and then you're running into a profit for the  
21 individual of from six to fourteen thousand  
22 dollars over a twenty-year period that you  
23 would not be paying in higher utility bills.

24 There is another question that I  
25 would like to address, and that is the question

1                   of jobs. According to project independence  
2                   report from the Federal Energy Administration,  
3                   it indicates that nuclear energy economy  
4                   would create four million person years of  
5                   labor as opposed to a solar energy economy  
6                   which would create eight million person years  
7                   of jobs. So that here is one of the reports  
8                   from Federal Energy Administration which  
9                   says that a solar economy is twice as many  
10                  jobs as nuclear economy. And in New Jersey  
11                  where we have an increased problem of jobs,  
12                  this is, something that, as responsible  
13                  legislators you have to address. There are  
14                  a couple of other -- another study from the  
15                  New Jersey Department of Environmental Control  
16                  shows that there is four times more jobs in  
17                  conservation programs than in a nuclear  
18                  program with generating the same amount of  
19                  electricity.

20                  I think at this point I would like  
21                  to stop and hope that others will have more  
22                  to say.

23                  MR. REIFER: Ms. Brezell, thank  
24                  you very much. I was trained as an economist  
25                  and you'll forgive me if I get terribly

1           when I have to confront a witness who has  
2           raised a fundamentally economic point. Perhaps  
3           you can help me with it.

4           MS. BREZELL: I'll try.

5           MR. REIFER: Surely, if one carries  
6           to its logical conclusion your suggestion that  
7           solar energy would create twice as many jobs  
8           as nuclear energy, the logical, ultimate  
9           conclusion of that is if we all went back to  
10          striking stones with other stones you generate  
11          energy, everyone would be employed.

12          MS. BREZELL: I don't think that that's  
13          the question at all, sir. I'm sorry, I don't  
14          agree with that.

15          MR. REIFER: But there is, surely,  
16          a point where we do see the element of  
17          technology; we do see the element of machinery,  
18          let's say, in the production of a good or  
19          commodity almost certainly will increase the  
20          number of people required to produce that.

21          MS. BREZELL: Of course, that's only  
22          one aspect of the problem we have to address.  
23          Of course, in support of the decision that  
24          must be made, for instance, by the utility,  
25          I would like to suggest that they are having a

1 very difficult time projecting the demands  
2 because they have to project it ten years  
3 in advance for nuclear, maybe eleven years.  
4 If they were, however, to go the route of  
5 cogeneration, which is a huge source of  
6 energy right here, four thousand megawatts  
7 of energy of power today in New Jersey is  
8 available. That's the size of four huge  
9 nuclear power plants -- is available today  
10 at a tiny fraction of the capital costs, if  
11 they would aggressively pursue that source  
12 of energy. Twenty-nine percent of the electric  
13 power of West Germany is generated through  
14 cogeneration, and yet we are not using that.  
15 We are wasting that energy. I can't answer  
16 what you're saying because I think that it's  
17 so complex and there are so many other issues  
18 involved and I don't mean to be simplistic  
19 about your question, but I just don't think  
20 time permits me to answer your question  
21 sufficiently.

SENATOR McGAHN: Thank you very much.  
The only comment I will make concerning the  
fact that you were critical of S1407, because  
it did not provide provisions as far as

1 conservation and other alternative means,  
2 as far as cogeneration at all, the reason  
3 that did not is the State Energy Office Act  
4 at the time had those provisions in there for  
5 that and we did not wish to simply overlap --

6 MS. BREZELL: I understand.

7 SENATOR McGAHN: -- and frankly, each  
8 Bill has its own particular place. Thank you,  
9 thank you very much.

10 MS. BREZELL: You're welcome.

11 SENATOR McGAHN: Mr. Arthur Murphy,  
12 Professor of Law, Columbia University.

13 MR. MURPHY: Mr. Chairman, I don't  
14 plan to discuss the merits or the wisdom  
15 of Senate Bills 1494 and 1721, but only to  
16 give my views on the question of pre-emption.  
17 Now, I brought with me and I'll leave it with  
18 the Committee if you desire a copy of an  
19 article entitled "Nuclear Moratorium Legis-  
20 lation in the State and the Supremacy Clause."  
21 It will tell you a lot more than I think you  
22 want to know about the subject of pre-emption,  
23 but if you like it, I will do that.

24 The article predates 1494 and 1721  
25 and deals with the various nuclear moratorium

legislation which was pending in California  
and other States last year. But in my view  
the Bills here are substantially identical  
to the legislation discussed in that article  
and for the reasons expressed in detail they  
are similarly pre-empted. The only time you  
make a prediction about what courts are going  
to do there's an element of chance, but with  
that qualification in all honesty, I don't  
see the question here as even close. It seems  
to me almost certain that if this legislation  
is enacted and challenged, it will be held  
to be in conflict with the federal legislation  
pre-empting the field.

We usually think of a pre-emption  
as a constitutional question. Actually,  
although it stems from the supremacy clause  
of the constitution, it's essentially a  
question of legislative intent. And so far  
as this particular area is concerned, the  
Atomic Energy Act of 1954 and particular the  
legislation amending the Atomic Energy Act  
of 1954 and 1959 which enacted Section 274  
of the Atomic Energy Act establishes, I think  
beyond any serious question an intention on

1 the part of the Congress to pre-empt in the  
2 area of nuclear safety. Section 274-C  
3 specifically reserves to the federal government  
4 control over the construction and the operation  
5 of any production or utilization facility,  
6 production and utilization facilities are  
7 defined elsewhere to include nuclear power  
8 reactors, high level waste disposal facilities,  
9 and reprocessing plants. Not only does the  
10 statute provide for mandatory retention by  
11 the federal government of responsibility in  
12 such areas, but it also expressly provides  
13 that no agreement with the State entered into  
14 pursuant to the general authority granted  
15 by Section 274 shall attempt to grant such  
16 responsibility to the State.

17 There is Section 274-K which provides  
18 that nothing in the section shall be construed  
19 to affect the authority of any State or local  
20 agency to regulate activities for purposes  
21 other than protection against radiation hazards,  
22 but I think there's serious doubt based on  
23 the language of the statute and the legislative  
24 history that Congress intended these aspects  
25 to be specifically the federal province. In

1 assessing the question it's important to  
2 remember also that the United States Supreme  
3 Court in Northern States Power Company against  
4 Minnesota, has already held that the Atomic  
5 Energy Act precluded an attempt by the State  
6 of Minnesota to impose more stringent regu-  
7 lations on the emissions from nuclear power  
8 plants than those imposed by the AEC. The  
9 same conclusion that state action was pre-empted  
10 has also been reached by the Supreme Court  
11 of New Jersey in State Department of Environ-  
12 mental Protection against Jersey Central  
13 Power and Light Company. The New Jersey  
14 decision is, I think, an important example  
15 of the broad reach of the Pre-emption Doctrine,  
16 the action which the State sought to regulate  
17 there was the discharge of non-radiated water  
18 from a nuclear power plant during a temporary  
19 shutdown; despite the fact the water was not  
20 radioactive, the Court held that the discharge  
21 was necessary to dilute atomic waste in  
22 accordance with AEC regulations and, therefore,  
23 the State regulations were pre-empted. Here,  
24 by contrast, the proposed statutes are a  
25 direct challenge to the federal program. Under

1 those statutes federally licensed facilities  
2 would be prevented from construction and/or  
3 operation pending findings by the States about  
4 such matters as reprocessing, disposal of  
5 high level nuclear waste, undergrounding of  
6 reactors, all matters which are committed to  
7 the control of the United States Nuclear  
8 Regulatory Commission. The NRC continues  
9 to license such plants without the competition  
10 of studies mandated by the Bills and the Bills  
11 would put the State of New Jersey into  
12 immediate and direct confrontation with the  
13 federal government.

14 The same analysis, it seems to me  
15 is applicable to the requirements that the  
16 owner of a nuclear power plant attain a level  
17 of insurance which would really compensate  
18 the people of businesses of New Jersey for  
19 losses in the event of a nuclear accident.  
20 Here you have in addition to the general  
21 pre-emptive effect of section 274, you have  
22 the specific pre-emption of the Price-  
23 Anderson Act, which was first enacted in 1957  
24 and has now been extended for another ten years.  
25 The general provisions of Price-

1 Anderson, I take it, are familiar to everybody.  
2 I think there's no doubt but that the requirement  
3 by section 5A of the Bill number 1494 of  
4 full compensation is flatly contradictory  
5 of Price-Anderson. There was a reference made  
6 a little earlier to the decision of the United  
7 States District Court for North Carolina in  
8 that Price-Anderson is unconstitutional. I  
9 only got a hold of a copy of the opinion  
10 this morning and I haven't had an opportunity  
11 to read it. I have very serious doubts that  
12 that case will hold up. I think the Act  
13 is constitutional and that the higher federal  
14 courts will so hold. In any event, whether  
15 it's unconstitutional on due process grounds,  
16 would not effect the fact that it pre-empts  
17 section 5A of Bill 1494. Subsections 5B and  
18 5C seem or may seem at first blush to be more  
19 nearly within traditional state concerns.  
20 The states do have a legitimate interest in  
21 questions such as the reliability and cost of  
22 nuclear power, and section 274 K of the Atomic  
23 Energy Act preserves a role for the States  
24 with respect to those matters.  
25 However, singling out nuclear power

plants and basing the choice among alternatives upon safety considerations is not permissible under federal law. By the same token, subsection C dealing with evacuation plans also runs counter to the Atomic Energy Act.

Evacuation plans are passed upon by the Nuclear Regulatory Commission and the States certainly have an interest in such plans. Maybe the State could insist upon formulation of plans supplementing those required by the NRC.

What it cannot do in my judgement is to deny the effectiveness of a license issued by the Nuclear Regulatory Commission on the basis of its own determination that the plants are run satisfactory. Up to now I've been talking as though the proposed measures were aimed at State regulation of nuclear power. It's perfectly clear that the objective of this legislation is not to regulate, but to stop nuclear power in its tracks. I don't think this observation needs very much argument, but let me call to your attention two or three of the conditions which are imposed by the statute which are clearly impossible of

1 fulfilment. One is the requirement that  
2 the owner of a nuclear power plant supply  
3 insurance which will, quote, fully compensate  
4 the people and the businesses of the State of  
5 New Jersey to the maximum feasible losses  
6 indicated by federal studies. I don't know  
7 what the drafter had in mind by the word  
8 feasible, but assume one takes as the basis  
9 of the scope of an accident the estimate of  
10 the Rasmussen report, or if you want to look  
11 at the more recent Ford Foundation study,  
12 both of these studies conclude that although  
13 an accident of this sort is highly unlikely,  
14 it could result in damages which far exceed  
15 the level of insurance which is available or  
16 which is going to be available. The only  
17 source from which one would get an assurance  
18 of full compensation is the federal government,  
19 and the federal government has already on a  
20 number of occasions expressly declined to  
21 give such an assurance. So too, section 5D  
22 would require the demonstration of all safety  
23 systems by testing substantially similar  
24 physical systems in actual demonstration.  
25 Emergency core cooling has been singled out

1 for specific mention. It's a back-up system  
2 which will become operative only in the event  
3 of what are thought to be highly unlikely  
4 circumstances. Tests of the emergency core  
5 cooling system can be made, but the requirements  
6 of the statute is at least susceptible to  
7 the interpretation that this billion dollar  
8 facility must be tested to destruction, a test  
9 which nobody thinks is likely and, in any  
10 event, would not tell us much about the  
11 operation of the system.

12 Finally, in the case of reprocessing  
13 plants, it seems likely if our present in-  
14 formation about the Carter administration's  
15 plans in the nuclear field is correct, that  
16 the United States will forego chemical re-  
17 processing for at least the indefinite future.  
18 That decision, which if made, will certainly  
19 be applauded by large segments of those  
20 interested in nuclear proliferation; it would  
21 also, as I read the statute, make the requirement  
22 of section 3A of Bill number 1721 literally  
23 impossible of fulfillment. In closing, I'd  
24 like to say that I do not mean to suggest that  
25 concerns about nuclear power and its safety

1                   are not worthy of attention. I do suggest  
2                   that under existing law they are concerns  
3                   which are committed to the federal government  
4                   and, therefore, pre-empted to the States. It  
5                   may well be that new allocation of responsibility  
6                   is called for, and the Nuclear Regulatory  
7                   Committee is engaged in a dialogue to try and  
8                   work out some accommodation to recognize  
9                   State interests. Perhaps it is true that  
10                  the State should be given more of a say in  
11                  these matters, but one can hardly regard  
12                  these Bills, these attempts to unilaterally  
13                  stop federal program deliberately undertaken  
14                  by the federal government as an invitation  
15                  to a dialogue. Thank you, Mr. Chairman.

16                  MR. REIFER: Professor Murphy,  
17                  you'll forgive me if I feel like a young man  
18                  who's decided to have a graduation party from  
19                  a university and I sent out all the invitations  
20                  and I booked the hall and I ordered the food  
21                  and I've rung all my friends and I've got the  
22                  band and you're the Dean of the college and  
23                  you just told me I've been expelled. If you  
24                  had been a witness at ten o'clock in the  
25                  morning we could have been out of here by

1  
2 11:15.

3 MR. MURPHY: I had a class at ten...

4 MR. REIFER: If it is, in fact, the  
5 case, and certainly from what you've said in  
6 the manner of your reputation, one must assume  
7 that, legally, it is indeed the case, if it  
8 is the case that the State has no role to  
9 play at least insofar as imposing moratorium  
10 on nuclear construction is concerned, then  
11 why is it that the utility industry themselves  
12 have not taken that posture but have sought  
13 to debate the merits of nuclear power and used  
14 those merits as an indication as to why this  
legislation was not necessary?

15 MR. MURPHY: Well, I don't think you  
16 can look at this solely in terms of this  
17 particular debate. It seems to me that the  
18 efforts at State moratoria are an extension  
19 and perhaps an expression of frustration at  
20 the inability to accomplish the objective of  
21 a moratorium at the federal level. There have  
22 been many Bills to precisely the same extent  
23 introduced in Congress over the years. They  
24 have gotten nowhere and people have decided  
25 that perhaps the States are an easier avenue

1 which to do it. I don't think that deciding  
2 the question of pre-emption decides the question  
3 of nuclear power. All I would say is that I  
4 don't think it's a question that ought to be  
5 vulcanized. I don't think it's a question  
6 contrary to the first witness this afternoon,  
7 I don't think it's a question that ought to  
8 be decided on a State-by-State level. I think  
9 the decision to go forward or not to go  
10 forward with nuclear power is a national  
11 decision that ought to be made nationally;  
12 and as to that decision, nothing I've said  
13 really bears on it. I have my own views,  
14 but I just think this is the wrong forum  
15 in which to attempt to stop nuclear power.  
16 I don't think that the enactment of these  
17 Bills would lead to a coherent national energy  
18 policy, and therefore, I would think on the  
19 merits I would not be for them. But quite  
20 apart from the merits, until Congress changes  
21 the law, these Bills, it seems to me, are  
22 clearly pre-empted by the Atomic Energy  
23 Act.

24 SENATOR McGAHN: Professor, assuming  
25 for the sake of argument that you're entirely

1 and that we are pre-empted from anything that  
2 we wish to do by the federal government at  
3 the present time, given a particular set of  
4 circumstances that occur here in New Jersey,  
5 and that is the siting of the first offshore  
6 nuclear generating plant within the Riparian  
7 Rights of the State, and given the 10th  
8 amendment, would you feel that the federal  
9 government could pre-empt the State's decision  
10 not to issue a license for a plant within  
11 the three-mile limit?

12 PROFESSOR MURPHY: Well, it's not a  
13 question that I -- that the offshore plants  
14 are things that I have simply not addressed.  
15 It's get you into some very tricky areas of  
16 federal-State relationships offshore -- my  
17 guess would be, Senator, that the answer to  
18 it is yes. But I just haven't focused on it.

19 SENATOR McGAHN: Let me go one step  
20 further and assume that we do, with at least  
21 a coastal zone management plant which should  
22 be September of this year, September of '77,  
23 which we can, of course, then simply present  
24 to the Secretary of Commerce for comparing  
25 as far as coastal zone management is concerned,

1 my understanding is amendments to the coastal  
2 zone management act of 1976 provides a con-  
3 sistency clause and, of course, also provides  
4 for the national interest, although they did not  
5 define either one of those; assuming that  
6 plan is approved by the Department of Commerce,  
7 the Secretary of Commerce, and frankly, those  
8 facilities are not a permitted type within  
9 that coastal facility zone or coastal management  
10 plan, would this give greater credence than  
11 the fact that the federal government could not  
12 pre-empt that despite the fact that they do  
13 recognize the Secretary of Commerce could  
14 override anything in that plan as far as the  
15 State is concerned? I'm picking your brain,  
16 really, because we're talking about hypothetical  
17 questions.

18 PROFESSOR MURPHY: You're mining not  
19 a very rich lode on this particular subject.

20 SENATOR McGAHN: I don't think there's  
21 any answer to it.

22 PROFESSOR MURPHY: Again, I would like  
23 to stress the question of pre-emption, although  
24 it is regarded as an aspect of constitutional  
25 law, is really a matter of statutory

1 interpretation. Congress could, if it chose,  
2 open up this field to the states, and there  
3 would be no constitutional bar. When you get  
4 into the offshore areas, I get into an area  
5 that I'm really quite unfamiliar with. But  
6 I would think that congress could do it. Until  
7 they do it, I doubt that there's anything  
8 that the Secretary of Commerce could do to  
9 bootstrap the State's rights. But I honestly  
10 haven't focused on that.

11 SENATOR McGAHN: No further questions.  
12 Thank you very much.

13 Mr. Peter Jansson, Committee for  
14 Alternative Living.

15 MR. JANSSON: I'd like to first say  
16 that I'm not an economist. As a matter of  
17 fact, I'm a student in Urban Planning and  
18 Engineering. But when we talk about nuclear  
19 energy, we're not only talking about economics;  
20 we're talking about efficiency. And the  
21 efficiency involved in converting nuclear  
22 energy or the energy stored in uranium to  
23 electricity has been compared to essentially  
24 what you're trying to do is just boil water.  
25 That you're splitting the atom to boil water.

1           We're comparing --  
2  
3

SENATOR McGAHN: Mr. Jansson, I don't  
4 want to interrupt you. Are you --  
5

MR. JANSSON: I'm about to go into --  
6

SENATOR McGAHN: Okay, I'm sorry.  
7

MR. JANSSON: I was just prefacing a  
8 remark. I'm sorry. I'm addressing Bill 1494.  
9 The efficiency involved in converting -- making  
10 electricity, boiling water in other words  
11 by splitting the atom, has been compared to  
12 trying to swat a fly with a cannon ball in  
13 terms of the relative -- thermo-dynamically,  
14 the energy that's involved.  
15

MR. REIFER: But it does deal with  
16 the fly.  
17

MR. JANSSON: For sure. Okay. But  
18 what I'm trying to say is solar, though it  
19 employs more people, is just as efficient at  
boiling that water. Okay. Now, the Committee  
20 for Alternative Living which is based in  
21 Ocean City which I'm speaking on behalf of  
22 today, strongly encourages the Committee,  
23 your Committee, to support Senate Bill 1494.  
24 The information which I hope to impress upon  
25 you today and I hope not to repeat a lot of

1 what's been said, deals specifically with how  
2 this Bill may have a beneficial impact on  
3 the depressed economy of the State. Okay.

4           This impact will be achieved when  
5 1494 is passed because nuclear generated  
6 electricity brings with it a host of undesirable  
7 economic situations. And you can -- I guess  
8 you'll have your questions at the end, but  
9 if you want to stop me in the middle, feel  
10 free.

11           SENATOR McGAHN: Keep going, please.

12           MR. JANSSON: The cost of electricity  
13 is greatly increased to the consumer when the  
14 utilities invest in nuclear technology and  
15 employ it for generations. Proliferation of  
16 such plants at an uncontroled rate (similar  
17 to the rate that exists at the present) could  
18 have disasterous effects on the economic  
19 situation of New Jersey.

20           Second, the high risks involved in  
21 the continued operations of such facilities,  
22 such as dangers associated with accidents,  
23 leakages, sabotage and acts of God, greatly  
24 decreases the interest of new industry to  
25 invest in our State. Now, studies could be

1           done to show this, but as of yet, the studies  
2           haven't been done, so this is the stance of  
3           the Committee of Alternative Living which we'd  
4           like to impress upon you. This has an ill-effect  
5           on the alleviation of the chronic unemployment  
6           which exists in our State.

7           Nuclear power facilities themselves  
8           employ fewer persons than similar capacity  
9           fossile fuel plants, and necessitate only  
10          a small fraction of the employees that  
11          alternative energy installations would require,  
12          like solar farms, wind stations, and other  
13          natural energy sources. Still, the plants  
14          cost more, the money has been invested into  
15          a facility, not into the workers and indirectly  
16          the economy of New Jersey. As a fact, 40  
17          percent more jobs can be created from coal  
18          plants than nuclear plants.

19           The cost for nuclear plant construction,  
20          materials, and fuel have been skyrocketing  
21          over the past few years at an unprecedented  
22          rate; and until some stabilization in these  
23          increases comes about, it is vital that the  
24          proliferation of new construction be controlled.  
25          This is all that the moratorium outlined in

1494 affects.

Senate Bill 1494 will assist the State of New Jersey in many ways; it will provide the legislature and the people of the State with the time necessary to evaluate the implications of nuclear technology on the economy, environment and the life style of the residents.

S1494 will create more access to factual information concerning nuclear power plants to all of the states and to the country as well so that more effective guidelines and legislation can be made concerning them.

If enacted into law, S1494 will assure the residents of our State the most inexpensive electricity which is technologically available. This will come to pass because of the legislative advisory group which is set up in the Bill which will look into all feasible alternatives and make recommendations to the study commission of the legislature. In a time of rising costs and uncontrolled inflation this is of the utmost importance.

This Bill will assist New Jersey by merely guaranteeing the development of all

1                   natural energy sources that prove economically  
2                   feasible. This includes offshore wind power  
3                   facilities, land-based solar installation,  
4                   possible wave energy generation systems and  
5                   a host of other labor (people)intentive  
6                   technologies. This is quite helpful, too,  
7                   to the unemployment picture.

8                   Besides these direct effects on the  
9                   economy and the life style of people in our  
10                  State, the passage of this Bill guarantees  
11                  public safety during the operation of already  
12                  existing nuclear power plants. This has  
13                  drastic implications on the nation as a whole,  
14                  since no similar law has ever been passed.  
15                  Most of the other laws, I believe, were in  
16                  terms of public referendums in terms of which  
17                  the people voted, which is -- you don't want  
18                  to make a comment in terms of the education  
19                  of legislators and the education of the  
20                  general public as a whole, but I think it's  
21                  proven that the understanding of legislators  
22                  are more able to deal with, how shall I say,  
23                  complicated issues like nuclear power than  
24                  the average citizen is because, you know,  
25                  they've been elected for that purpose. So

1           this Bill is essentially --

2           SENATOR McGAHN: I would now like you  
3           to deal with the nuclear power generation  
4           issue only.

5           MR. JANSSON: Oh, for sure; yes, for  
6           sure. Okay.

7           New Jersey would prove to other  
8           States that it is working in the best interest  
9           of its citizens by passing S1494 since it is  
10          also:

11          Standing up to the utilities who in  
12          1969 spent over three hundred twenty million  
13          dollars in advertising to promote consumption  
14          in a time when reserves of energy were already  
15          becoming depleted while only spending forty-  
16          one million dollars on research and development  
17          of new sources of generating.

18          Providing assurance -- also by providing  
19          assurance to its residents about the most  
20          economical, efficient, and safe energy source  
21          will be developed for their and their childrens'  
22          future.

23          Protecting its residents from the  
24          dangers of a nuclear accident, by this, like  
25          a devastating core meltdown and all these other

1 things which have already been mentioned.

2 Asserting its position of support  
3 for worthwhile development of energy sources  
4 and related industries. And this is a key, too.  
5 Encourage the development of the private  
6 sector of our economy, instead of increasing  
7 the federal subsidiations of industries,  
8 similar to nuclear facilities, which are not  
9 even capable of bearing the insurance that's  
10 necessary to even put them in operation.

11 The following facts I'm going to list  
12 here, defend the arguments that nuclear energy  
13 is a questionable power source for continued  
14 development.

15 Up until the sixties disposal of  
16 nuclear wastes was primarily done by dumping  
17 metal cannisters of it into the ocean off of  
18 New York, which were further incased in  
19 concrete. A total of 85,000 of these were  
20 dumped. The life span of the cannisters was  
21 about 100 years. The life span or the, you  
22 know, the radioactivity of the nuclear waste  
23 inside would last over 200,000 years in the  
24 case of like plutonium. And they'd still be  
25 deadly. What a shortsight on the part of

1                   scientists who are so sure that this is safe  
2                   and the best way to go.  
3

4                   Why do utilities continue to advertise  
5                   to the public, and this is a question that I  
6                   just can't understand, why do they continue  
7                   to advertise that this is clean, it's safe,  
8                   you know, it's energy efficient and it is  
9                   cheap, because Senator Mike Gravel of Alaska  
10                  answers this by saying, "Obviously, there is  
11                  a puzzling contradiction between the utilities'  
12                  advertisements which claim radioactive power  
13                  plants are wonderfully safe, and the utilities'  
14                  testimony to Congress that they would not  
15                  build them unless Congress relieves them of  
16                  almost all financial responsibility for  
17                  accidents." This is a quote. "If 'nukes'  
18                  are as safe as they claim, why do they worry  
19                  about financial responsibility for accident?  
20                  If the utilities won't even risk their  
21                  dollars on the safety of nuclear power plants,  
22                  why should the people have to risk their lives?"

23                  Local utilities continue to advertise  
24                  that nuclear fuel is cheap. It's been shown  
25                  from 1966 to 1975 the cost of nuclear power

1 plants has increased 244 percent in constant  
2 dollars. These costs are over double the costs  
3 of a comparable fossile fuel plant.

4 Deadly radioactive waste such as  
5 plutonium-239, which I'm sure you've already  
6 heard about, has a life span of 240,000 years.  
7 Presently, there is not adequate storage for  
8 nuclear waste which has already been generated,  
9 and if the federal government isn't going to  
10 be smart enough to do something about it,  
11 that's no reason for us to say, well, let's  
12 not us have something to do about it. And  
13 until there's some sort of paplanning for  
14 where this waste is going to go, it's a real  
15 shortsight to permit the unregulated pro-  
16 liferation of nuclear energy.

17 The University of Massachusetts as  
18 well as MIT of which I am a student -- I'm  
19 at Rutgers at the present time; I was an  
20 undergraduate student at MIT in Civil Engineering  
21 with studies which show -- have put out studies  
22 which show alternative energy sources, such  
23 as wind and solar, are and can be an economical  
24 part of New Jersey's -- are available -- have  
25 the potential to be -- an economical part of

1           New Jersey's future energy producers. Why  
2         should we wait until it is too late to take  
3         advantage of such unlimited natural energy  
4         supplies.

5           I know from your observations of  
6         testimony so far, it's pretty obvious that  
7         there are many studies supporting both sides  
8         of this argument, and they should all be  
9         looked into and evaluated. 1494 buys us the  
10       time to do just that. It does not shut  
11       down nuclear plants. It merely forces  
12       proponents of nuclear power to prove their  
13       claims that it is clean, safe, efficient  
14       and cheap and the line goes on. If it is,  
15       it will continue to be developed with no  
16       disruption to the economy. People who say that  
17       1494 will remove the option of nuclear in  
18       our future have not even read the Bill.

19           I'd like to ask for any questions.  
20         Well, before I do, there's one thing here in  
21         terms -- I don't like to make criticisms --  
22         I just say we have crucial issues we should  
23         be confronting. I have a little pamphlet  
24         here put out by a local utility which says,  
25         "Your electric bill includes 11 percent

1 nuclear energy." Then the next lines says,  
2 "Nuclear fuel is much cheaper." Notice,  
3 they didn't say nuclear energy is much cheaper,  
4 because they can't prove it. All they know  
5 is the fuel is cheaper. The fact is the  
6 plant costs twice as much. In the long run,  
7 nuclear energy is not cheaper when you take  
8 into consideration all the thousands of years  
9 it has to be monitored and stored, and you  
10 can't put it in a hole somewhere and forget  
11 about it. It's got to have cooling systems  
12 and everything to make sure that you don't  
13 have any catastrophic things happen in the  
14 future. So all I'm trying to say is 1494  
15 is a great thing. It comes from a long  
16 history of similar type Bills. Senator Gravel  
17 told me that they'd been working on it a  
18 long time to try and find something that is  
19 fair on both sides. And he says this Bill  
20 is a good thing. I think it's a good thing,  
21 and I'm really happy to have the opportunity  
22 to talk to you about it.

23 SENATOR McGAHN: Thank you very much.  
24 No questions.  
25

1                   Mr. Bartnoff, Shepherd Bartnoff,  
2 Jersey Central Power an Light Company?

3                   MR. FINFROCK: I am not Dr. Bartnoff.  
4 He regrets he could not be here today. I am  
5 Ivan R. Finfrock Jr. I'm Vice President  
6 in charge of generation for Jersey Central  
7 Power and Light Company. Jersey Central is  
8 an electric utility company servicing over  
9 650,000 customers in 13 of New Jersey's 21  
10 counties which represents about 43 percent  
11 of the land area of our State. Due to the  
12 lack of time, I will be very brief and  
13 summarize the testimony, and we've left with  
14 you a number of copies of the complete  
15 document. Bill 1407 is in the nature of what  
16 has been referred to as one-step siting. We  
17 are in favor of one-step siting. We think  
18 there are real benefits to be gained by all  
19 concerned, by being able to obtain all of  
20 the permits required to construct a generating  
21 facility from one State agency. We are in  
22 favor of streamlining and unifying the lif  
23 license in process, so that one State agency  
24 would have the jurisdiction and authority to  
25 issue all the licenses and permits necessary

1 to locate and build a power plant. We have  
2 grave concerns however, with the Bill in its  
3 present form. It has shortcomings that we  
4 believe will add, rather than eliminate  
5 confusion and delay in the present siting  
6 process. If the Bill is enacted as written,  
7 we would be confronted with preparation of  
8 major applications and face public hearings  
9 for CAFRA permits and Wetlands permits,  
10 in addition to a virtually identical process  
11 required for certificate of site and facility.  
12 Three agencies of the government would be  
13 required to resolve the same concerns regarding  
14 the same site. This would defeat the primary  
15 purpose of the Bill. To the extent this  
16 Bill goes beyond siting, where it attempts  
17 to regulate operations and maintenance of  
18 facilities, we believe it goes too far. One  
19 of our major concerns in this Bill is the  
20 provision for adopting a State-wide energy  
21 facilities plant. The better procedure we  
22 would suggest, would be for the siting agency  
23 to issue general guidelines. Thereafter,  
24 the agency should concentrate its efforts  
25 deciding upon the desirability of alternative

1 sites proposed by an applicant. The siting  
2 of transmission lines is now regulated by  
3 the public utilities commission by granting  
4 the power of Eminent Domain and granting  
5 zoning relief. We suggest it should not be  
6 included in this Bill. The reference in the  
7 Bill to distribution facilities should be  
8 deleted. Distribution facilities must of  
9 necessity be located to serve our customers.  
10 The overwhelming majority of our distribution  
11 lines are located in the public right of way  
12 for which we have a statutory franchise under  
13 the Public Utility Act. The siting of  
14 distribution substations is more properly  
15 a concern of local governments. One positive  
16 feature in this Bill having to do with siting  
17 of energy plants is the grant of the power  
18 of Eminent Domain. We believe the power of  
19 Eminent Domain will play an important role in  
20 any siting scheme as a necessary tool for the  
21 scheme to be efficient and successful. We are  
22 concerned that the Bill may unnecessarily  
23 delay construction of relatively minor  
24 structures at existing facilities. As to  
25 additions or modifications to existing plants,

1                   an abbreviated review and approval procedures  
2                   should be provided for structures which do  
3                   not result in new or increased discharges of  
4                   pollutants and which have a minor effect on  
5                   the overall environmental impact of the plant.  
6                   A thirty or forty-five day procedure would be  
7                   reasonable and more than sufficient. We are  
8                   opposed to the requirement in the Bill that  
9                   facilities already under construction must  
10                  file an application for certification of site  
11                  and facility. We recommend that any facility  
12                  to which a permit has been granted should be  
13                  made exempt from the requirements of this Act.  
14                  The legislature has already made the decision  
15                  that CAFRA should not be retroactive.

16                  Our final concern with this Bill,  
17                  siting Bill is perhaps of greatest concern.  
18                  The concept of one-step siting is a good one  
19                  on paper. The question is whether it will  
20                  work in practice. In addition to our other  
21                  criticisms of this Bill, we find it is filled  
22                  with vagueness and imprecise definitions. There  
23                  is no clear expression as to who may or who  
24                  may not be a party to the proceedings and  
25                  what issues may or may not be considered. We

1 must caution that any one-step siting Bill  
2 should provide for highly structured formal  
3 proceedings with all issues to be well defined.  
4 A siting law which just adds another level  
5 of review to the already complex licensing  
6 process is worse than no siting law at all.  
7 The general public and the utility industry  
8 will both suffer if needed power plants are  
9 not constructed in a timely, efficient manner.  
10 Therefore, although we are in favor of one-  
11 step siting, we are opposed to this particular  
12 Bill in its present form.

13 That brings me to our comments  
14 concerning S1494 and 1721, the nuclear  
15 moratorium Bill. On the specific point of  
16 safety, commercial nuclear power plants have  
17 been operating in this country for over 270  
18 reactor years without adversely affecting the  
19 public. If one considers all the countries  
20 there are over 750 reactor years of operation.  
21 We have, as you know, a nuclear plant at  
22 Oyster Creek. It has generated over 27  
23 million megowatt hours of electrical power  
24 in the last seven years. The technology for  
25

waste disposal exists today. The main deterrent against pressing forward to solve this problem is not the lack of technology, but rather appears to be delayed by the appropriate policy-makers to select one of several acceptable technologies and go forward with its commercial development. Some 75 million gallons of high level military waste are currently stored in tanks in this country, compared to only six hundred thousand gallons of commercial high level waste. In addressing the need for public emergency plans for large scale radiation incidents, the State government of New Jersey has instituted what we know as PIPAG, Procedures for Implementing Protection Action Guides. A memorandum of understanding between the State and Jersey Central in implementing this procedure was signed in July of 1973.

The problem before this Committee is deciding whether to recommend a four-year moratorium on the construction of nuclear power plants. This represents a tremendous responsibility, both for this Committee and the legislature as a whole. In view of the

1 time it takes to construct any electrical  
2 generating facility, a four-year delay will  
3 cause an energy gap which this State will  
4 find hard to fill. We believe that it would  
5 be contrary to the public interest. Our  
6 greatest concern with these Bills, however,  
7 is that the language of the clause which  
8 excludes plants under construction is so  
9 restrictive as presently written that we would  
10 be required to stop construction of our  
11 Forked River station. Without the addition  
12 of the Forked River plant to our installed  
13 capacity in or about 1983, we will be unable  
14 to service our 1984 summer peak. It will not  
15 be possible to build a fossile fuel plant  
16 to replace Forked River in time to meet this  
17 peak, because there is at least a seven-year  
18 construction lead time. In addition, between  
19 1980 and 1984 we will be unable to complete  
20 our obligations to the TJM power pool of  
21 maintaining installed capacity to meet our  
22 reserve requirements. That affects the  
23 reliability of service, not only to our  
24 customers, but to the entire region.  
25

1  
2                   Thank you very much for allowing me  
3                   this time. I hope our comments and observations  
4                   will aid this Committee in its deliberation.

5                   MR. REIFER: Sir, with respect to  
6                   Senate Bill number 1407 the State Energy  
7                   Facility Agency Act, the basic concept of that  
8                   Bill, of course, is that the State ought to  
9                   play a more significant role in the siting  
10                  of any major energy facility. I understand  
11                  each and every one of the individual objections  
12                  that you have to the language which in the  
13                  Bill and some of the phraseology in the Bill,  
14                  what you characterize as the language of  
15                  definition of certain of the essential elements  
16                  with respect to nuclear construction is  
17                  concerned, but with respect to that basic  
18                  concept that the State ought to play a greater  
19                  role than it does at present in the siting  
20                  of major facilities, do you have any thought  
21                  at all -- is that a concept that you support  
22                  or do you have problems with that basic  
23                  concept?

24                   MR. FINFROCK: No, I think not. Our  
25                  concern was also expressed by Mr. Eckert, is

1           that we spend so much time trying to get a  
2         facility licensed and it almost takes as much  
3         time to get the license as it does to build  
4         the doggone thing. That's just a waste of  
5         everybody's money.

6                   MR. REIFER: So it's just a matter  
7         of time -- the fact that you'd be dealing  
8         with the State is not something that the  
9         utilities would find contrary to their best  
10        interests, as opposed to dealing with single  
11        municipalities?

12                  MR. FINFROCK: We're dealing with  
13         the State now in many, many different areas.

14                  MR. REIFER: Well, you're dealing  
15         with many departments of the State government  
16         for various aspects of your operations. But  
17         with respect to siting right now, you're  
18         primarily dealing with the municipalities in  
19         which you choose to locate, aren't you?

20                  MR. FINFROCK: Oh, yes, yes. And  
21         our thought was in that particular regard,  
22         that once the sites had been proposed that  
23         certainly there would be provisions in the  
24         administrative process for the local people,  
25         whether it be the township or the county, to

1 let their wishes be known. But someone has  
2 to decide which backyard it goes in.

3 MR. REIFER: Thank you.

4 MR. MATTEK: Thank you, Mr. Finfrock.

5 Mrs. Betty Horner.

6 MS. HORNER: Gentlemen, some way  
7 today I had the feeling that when it came my  
8 turn there would not be one senator present.  
9 I cameto testify before the Senate Energy  
10 Environmental Committee as I said, not one  
11 senator present. I will continue.

12 My name is Mrs. Richard Horner and  
13 I live in lower Alloways Creek, New Jersey,  
14 in the low population zone of Salem 1, Salem 2,  
15 Hope Creek 1, and Hope Creek 2 nuclear  
16 generating station.

17 Thank you, Senator McGahn, for  
18 returning. I just said that there wasn't  
19 a senator present. I take that back.

20 I feel like I'm sitting in a cart  
21 waiting for the horse to catch up. Yes, I  
22 feel material in these Bills in some form  
23 is needed before you ask me that, as you have  
24 asked everyone else. But I remember sitting  
25 on the hearings for the AEC held in Salem,

1           in 1968 and I wondered at that time where the  
2           State of New Jersey was and why aren't they  
3           here protecting or assembling something like  
4           we are doing here today. I almost didn't  
5           come today because as a concerned NPC, which  
6           is a non-profit citizen, I'm not considered  
7           an expert. I'm happy I did, because today  
8           I finally became an expert in a room filled  
9           with experts. I'm now an expert on siting.  
10          I can look out my windows and site the location  
11          of all four nuclear plants in my township.  
12          I've finally made the grade. My township was  
13          concerned enough and they hired a nuclear  
14          consultant. His qualifications cannot be  
15          questioned. He so advised lower Alloways  
16          Creek that the radiation emissions are of  
17          great concern and we should take action.  
18          My township has taken action.

19           Gentlemen, I would like to submit  
20          my testimony in writing and yield my time so  
21          the people in this room, before anyone else  
22          leaves, can hear from a man who's trying  
23          to cope with non-profit citizens, such as  
24          myself, utility problems and the potential  
25          problems of these newly proposed Bills.

Gentlemen, with your permission, I  
would like to yield my time and introduce my  
Mayor, Mr. Samuel Donelson.

SENATOR McGAHN: Mayor Donelson,  
please. Thank you very much, Mrs. Horner.

9 SENATOR McGAHN: That's perfectly  
10 all right.

11 MR. DONELSON: Senator, if you don't  
12 mind, I'd like to thank Mrs. Betty Horner  
13 for yielding her time and also I'd like to  
14 thank you, Senator, and the other gentlemen  
15 for allowing us to have this opportunity to  
16 speak our piece, so to speak. Also, I'd  
17 like to introduce to my left, Mr. William  
18 Horner, our township solicitor and to my  
19 right, Dr. John Lamarsh. We consider him to  
20 be our nuclear consultant. After we make our  
21 remarks, if you have any questions or comments  
22 that might either be of a legal matter or  
23 that of a nuclear matter, hopefully, you would  
24 allow these two gentlemen to answer the  
25 questions.

1 Again, by way of introduction, I'd  
2 like to introduce myself. My name is Sam  
3 Donelson. I'm presently Mayor of Lower  
4 Alloways Creek township, Salem County, Salem.  
5 New Jersey. Gentlemen, you heard earlier  
6 this morning, of course, this being late  
7 afternoon, the comments from legislative  
8 assemblyman, Don Stewart, in regard to some  
9 of his particular feelings concerning Senate  
10 Bill 1407. I'd like to preface the reading  
11 of the resolution that we've adopted from  
12 township level with the comments, saying that  
13 I wholeheartedly concur the fact that in  
14 light of we currently now, have one nuclear  
15 power plant in operation, that being Salem  
16 number 1 and Salem number 2, currently under  
17 construction and contemplated in going on  
18 line perhaps 1979, 1980 and also with the  
19 construction of Hope Creek 1 and 2, I concur  
20 wholeheartedly that Lower Alloways township  
21 should, in fact, be given special exception  
22 to the -- not allowing any more sitings at  
23 Artificial Island located in Lower Alloways  
24 Creek township. In other words, we feel that  
25 we are doing our part, as far as providing

1                   nuclear power or power in Lower Alloways Creek  
2                   township for the State of New Jersey. So,  
3                   therefore, I would respectfully request that  
4                   Lower Alloways Creek township not be considered  
5                   a siting for future sitings of nuclear power  
6                   plants at Artificial Island.

7                   We have here, gentlemen, a resolution  
8                   and I would like to read that. I think it is  
9                   of the utmost importance for us as a township.  
10                  We have given it some definite considerations  
11                  in light of senate Bill 1407 and also  
12                  realizing that you gentlemen have this  
13                  particular resolution before you, I would  
14                  like to read it anyhow, if you bear with me.

15                  The Township Committee of the Township  
16                  of Lower Alloways Creek in the County of  
17                  Salem and State of New Jersey opposes  
18                  Senate Bill 1407 for the following reasons:

- 19                  1. The Bill creates a new governmental entity  
20                  that consists of eleven persons all of whom  
21                  are appointed by the Governor and none of whom  
22                  are elected by the people. See Section 4.
- 23                  2. This "political subdivision of the State"  
24                  is to be known as "State Energy Facility  
25                  Agency," is given the authority to adopt a

1 statewide energy facilities plan unless each  
2 branch of the legislature passes a resolution  
3 objecting to it within sixty days of its  
4 transmission to them. See Section 19.b.  
5 Once its plan has been adopted this new govern-  
6 mental entity of appointed people will be  
7 authorized to designate lands in New Jersey  
8 for use as energy parks, energy facility, or  
9 energy related facility sites or as buffer  
10 zones thereto and to adopt, amend and repeal  
11 any rules and regulations necessary to carry  
12 out the purpose of the Act. See Section 20.  
13 Once such territories have been staked out  
14 for itself by this new "governmental entity"  
15 it will have the sole authority to regulate  
16 uses and construction by energy industries or  
17 energy related industries within these  
18 territories without regard to any local  
19 zoning rule or approval by any county or  
20 municipal zoning or planning board or agency.  
21 See Section 23. Thus, this agency will  
22 replace and supplant the elected governmental  
23 officials on the local and county and state  
24 levels from control of development within  
25 various land areas to be selected by this

1 new agency throughout the State.

2       3. This delegation of land use regulation  
3 by the Bill is in contravention of the spirit  
4 if not the letter of the New Jersey Constitution  
5 Article 4, Section 6, paragraph 2 which author-  
6 izes the legislature to enact general laws  
7 under which municipalities may adopt zoning  
8 ordinances and regulate land use. It is also  
9 contrary to the provisions of the New Municipal  
10 Land Use Law so recently adopted by the  
11 legislature which provides for municipal approval  
12 and regulation of public utility construction  
13 subject to appeal to the Board of Public  
14 Utility Commissioners. See NJS 40:55D-19.

15       4. Once this new governmental entity created  
16 by the Bill adopts its "statewide energy  
17 facility plan" no energy industry or energy  
18 related industry which it chooses to regulate  
19 may commence construction or operation of any  
20 energy facility or energy related facility  
21 unless the new agency has approved and  
22 certified the site and facility. See Section 22.  
23 This will give this new governmental entity of  
24 eleven appointed officials veto power over  
25 considerable construction activity within the

1 State. "Energy facility" is broadly defined  
2 in Section 3.d as "any and all plants, buildings,  
3 structures or operations of any kind which  
4 are directly associated with the production,  
5 processing, distribution, transmission or  
6 storage of energy in any form, including, but  
7 not limited to, the electric generating  
8 facilities, either fossil fueled or nuclear,  
9 refineries, gas processing plants, pipelines,  
10 electric transmission lines, and petroleum or  
11 gas storage tank farms." Since the term  
12 "energy" is nowhere defined in the Bill, this  
13 authority to regulate could range everywhere  
14 from nuclear generating stations and LNG  
15 termings to coal yards and wood lots.

16 5. In order to make clear its intent to totally  
17 exclude local government or county government  
18 from participation in this important area of  
19 development with great impact on local people,  
20 the Bill reasserts at Section 30 that no  
21 municipality or county may require any  
22 approval, consent, permit, certificate or  
23 other condition for the construction, operation  
24 or maintenance of any energy facility or energy  
25 related facility approved by this new

1 "governmental entity."

2       6. This new "State Energy Facility Agency"  
3       will also have authority under the Bill over  
4       "energy related industry" which is extremely  
5       broadly defined, see Section 3.h, to include the

6             "....complete complex of businesses and  
7             industries known as the petro chemical  
8             industry, and those businesses and  
9             industries associated with the drilling  
10           offshore for oil and natural gas,  
11           including but not limited to, mud  
12           suppliers; cement, wireline, gas lift,  
13           logging and perforating rental tool,  
14           well head equipment and down hole  
15           equipment companies; machine shops,  
16           trucking firms; supply stores; and  
17           diving services."

18       The reach of the jurisdiction of this new  
19       governmental agency in other words is exten-  
20       sive and apparently subject to its own  
21       determination as to its final limits.

22       7. This Bill will generate enormous paper  
23       work since every energy industry in this State  
24       and every energy related industry in this  
25       State "as determined by the agency" shall

1           within eight months of the effective date of  
2           the Bill and every three years thereafter  
3           submit to the agency a twenty-five year energy  
4           facilities plan or revision thereto. And you  
5           can look at Section 13, for that. The paper  
6           work and the man hours and the expertise and  
7           the expense on the part of the industry and  
8           on the part of this new State Agency and the  
9           taxpayers who must support it is enormous  
10          and one wonders if a cost benefit analysis of  
11          this Bill has been made by its proponents.

12         8. While the new agency will be able to take  
13          its time in selecting territories to comprise  
14          its territorial jurisdiction within New Jersey  
15          the elected governments in the State such as  
16          municipalities and counties are only entitled  
17          to a sixty day advance notice of the public  
18          hearing to be held by the agency on its  
19          selections. See Section 17 for substantiation.  
20          This would seem rather short notice to mount  
21          any protest against such annexation.

22         9. The new governmental unit created by  
23          Senate Bill 1407 will also become a land  
24          broker by authority of the Act. It will have  
25          the power of eminent domain which it may

1 exercise on behalf of energy industries or  
2 energy related industries. Remember the  
3 board definition of "energy related industries."  
4 Under the provisions of Section 21 any energy  
5 related industry may arrange for this new  
6 agency to condemn privately owned land for its  
7 use within any territory designated as an  
8 energy park or site. The agency can then  
9 condemn the private land for such purposes and  
10 for buffer purposes and then convey ownership to  
11 and be reimbursed by the energy related industry.  
12 Thus, the power of eminent domain formerly  
13 reserved to governmental units or to public  
14 utilities will be vastly extended for the  
15 benefit of those "energy related industries"  
16 that can make a deal with this new "state  
17 energy facility agency." The possibility of  
18 such power of condemnation particularly of  
19 "buffer areas" is a threat to the rights of  
20 private ownership of land throughout the State,  
21 particularly when this power is to be exercised  
22 statewide by eleven appointed men.  
23 10. It is apparent throughout the Bill that  
24 the proponents have lost faith in the ability  
25 of local, state and county government and

1 existing agencies to wisely regulate land use.  
2  
3 The proponents must also doubt the ability of  
4 Public Utilities and energy related industries  
5 to select and acquire proper sites for con-  
6 struction of their facilities. Somehow, co-  
7 existent to this rejection of existing in-  
8 stitutions, is a great optimism that the  
9 State Treasurer, the President of the Board  
10 of Public Utility Commissioners, the Commission-  
11 er of Community Affairs, the Commissioner of  
12 Environmental Protection, the Commissioner of  
13 Labor and Industry and six citizens to be  
14 appointed by the Governor with the advice and  
15 consent of the Senate, eleven men in all,  
16 serving without compensation, will be able to  
17 perform successfully and better all of the  
18 decision making functions that are now being  
19 performed by Planning Boards, elected officials,  
20 manager of private industry and private  
21 landowners in regard to land use allocation  
22 and development. The Township of Lower Alloways  
23 Creek does not subscribe to such optimism and  
24 finds it absurd and contrary to this Township's  
25 basic philosophy of democratic government and

1 free enterprise.

2       11. In addition to the public policy and legal  
3       objections stated above, the Township of  
4       Lower Alloways Creek strongly objects to the  
5       false technological premises on which the  
6       Bill is based, particularly in the espousal  
7       of energy centers. The emphasis placed by  
8       this Bill on energy centers shows a complete  
9       misunderstanding of the energy center concept.  
10      Energy centers, especially those for the  
11      generation of electric power, make sense only  
12      in those areas of the nation having low popu-  
13      lation densities, large amounts of cooling  
14      water, and ample open space for the dispersion  
15      of the pollutants emanating from the centers  
16      during normal operations and under accident  
17      conditions. In the case of nuclear energy  
18      centers, in addition, the areas in question  
19      should be near geological formations, for  
20      instance salt beds, used for the storage  
21      of radioactive wastes, and be located in  
22      regions where it makes sense to fabricate  
23      nuclear fuel.

24      12. The State of New Jersey satisfies none of  
25      these criteria. The population density is

1           the highest of any State in the union. Sub-  
2           stantial amounts of uncommitted cooling water  
3           are available on in the Atlantic Ocean. Land-  
4           based, as opposed to ocean sited, energy centers  
5           would have to be located inland or along the  
6           western boundary of the State. Since the  
7           prevailing winds in New Jersey are westerly,  
8           this means that pollutants from such energy  
9           centers would be dispersed over the full width  
10          of the State. New Jersey is not the place to  
11          reprocess nuclear fuel, store nuclear wastes  
12          or fabricate new nuclear fuel.

13. By their very nature, energy centers  
14          provide extremely high loads on the local  
15          environment. They have extreme demands on  
16          cooling water and significant impact on the  
17          local meteorology. Such centers permanently  
18          alter the local transportation network. There  
19          can be no advantage in placing such con-  
20          centrated sources of high environmental  
21          pollution and impact in the State of New Jersey.

22. While politically energy centers might  
23          appear to simplify energy facility siting  
24          problems, in fact, building such centers in  
25          this State would be like taking a thousand

1                   aspirins in one dose to cure a lifetime of  
2                   headaches.

3                   15. Electricity costs in New Jersey are among  
4                   the highest in the nation. Since energy  
5                   centers, especially nuclear energy centers,  
6                   would undoubtedly have to be located in the  
7                   southern part of the State, due to combined  
8                   requirements of low population density and  
9                   abundant water supply, electric power would  
10                  have to be transmitted over substantial distances  
11                  to northern load centers. This would add  
12                  significantly to the already high cost of  
13                  power in this State.

14                  16. From the standpoint of national security,  
15                  energy centers make no sense whatever, pre-  
16                  senting as they do single targets whose  
17                  destruction can permanently eliminate electric  
18                  power generation in the State. It should be  
19                  remembered that after a nuclear attack, the  
20                  rebuilding of society will require electric  
21                  power. Scattered plants, especially nuclear  
22                  plants, can provide continuing uninterrupted  
23                  sources of electric energy needed for recon-  
24                  struction. These facts are well known to the  
25                  Russian government which has made great efforts

1 to disperse its industry, but unfortunately  
2 little understood here in the United States.  
3

4           In conclusion, it should be noted that  
5 the Nuclear Regulatory Commission staff under-  
6 took a detailed study of the nuclear energy  
7 concept in 1975. It concluded that while  
8 such energy centers were feasible and practical  
9 in certain locations, it saw no indication  
10 of any great or unequivocal advantage or  
compelling need for such centers.

11           The Township of Lower Alloways Creek  
12 for any and all of the above reasons opposes  
13 Senate Bill 1407 and urges its defeat.

14           SENATOR McGAHN: Mayor, I am somewhat  
15 confused with your testimony. And very  
16 frankly here, you challenge the right of the  
17 State, from a constitutional standpoint. The  
18 constitution says may; it doesn't say shall,  
19 as far as local zoning is concerned. I'd  
20 also like to point out to you that municipalities  
21 are a creature of the legislature, so that  
22 which the legislature may give, it may likewise  
23 take away.

24           In certain other areas you are, I  
25 think, misinterpreting an energy cluster for

1 what we consider as an energy center. As far  
2 as I am concerned, I consider Lower Alloways  
3 Township as being an energy center because  
4 there are four or will be four nuclear generating  
5 plants there. And in the report that has  
6 been proposed by Dr. Morell, he made the  
7 comment in there that four could be considered  
8 as a small cluster. Very frankly, we were  
9 not considering in the terms of an energy  
10 center or energy-related center that there  
11 would be the entire fuel reprocessing situation  
12 with fabrication of rods and storage of  
13 waste materials, this is very frankly, I  
14 think as you now, this is certainly not  
15 feasible, practical, and if not actually  
16 permissible at this particular point in time.  
17 Now, I think you're asking us if this were  
18 to be law to exempt Lower Alloways Township--

19 MAYOR DONELSON: Yes, sir.

20 SENATOR McGAHH: -- but you're  
21 epitomizing, actually, in what you're asking  
22 us with what you actually do have.

23 MAYOR DONELSON: Or asking for two  
24 things; number one, we're asking for an  
25 exemption; secondly, as you noted, we oppose

1           this stringently. However, going back to  
2           the statement you made that municipalities,  
3           if I understood you correctly, create for the  
4           mere existence of the State --

5           SENATOR McGAHN: No, I said a municipi-  
6           ality is a creature of the legislature.

7           MAYOR DONELSON: A creature of the  
8           legislature; however, earlier this morning  
9           you were sort of advocating that municipalities,  
10          in fact, should draw up the particular  
11          legislation if they were not in agreement  
12          with Senate Bill 1407.

13          SENATOR McGAHN: Listen, I still  
14          advocate that. That's not the point.

15          MAYOR DONELSON: However, on the  
16          other hand --

17          SENATOR McGAHN: The point I'm --  
18          simply, if you're here, you're simply challenging  
19          the constitutionality of the legislature.

20          MAYOR DONELSON: Yes, sir.

21          SENATOR McGAHN: And frankly, there's  
22          no challenge here. The legislature -- I mean,  
23          if you will, the term is may. It isn't shall.  
24          The legislature gives and the legislature can  
25          take away. And very frankly, if you think that

1 land use planning in this State today has  
2 been balanced, has been far reaching and far  
3 seeing, whether it's local zoning or otherwise,  
4 then very frankly, I would like to see that  
5 land use planning.

6 MR. HORNER: May I respond just a  
7 moment to your comment?

8 SENATOR MCGAHN: Yes, you certainly may.

9 MR. HORNER: The statement on  
10 paragraph -- on item 3 of this resolution  
11 is not the Bill is unconstitutional. It  
12 says that it violates the spirit, which is  
13 the thrust of this statement, because the  
14 constitution of New Jersey does decidedly  
15 delegate this authority to the legislature  
16 to provide for land use planning and regulation  
17 by municipalities. We do not say that other  
18 state agencies cannot also have such  
19 authority. But we're saying that the spirit  
20 of the constitution of New Jersey was to  
21 expressly vest certain zoning powers in the  
22 local municipalities. And under the previous  
23 state legislation, such as the Wetlands and  
24 the Coastal Zoning, there was still the  
25 ability of the local municipality to have its

zoning within those areas. The State regulation was an overlay but did not replace or supplant local zoning.

Now, this goes quite a bit farther because it does remove from the local municipality its layer of control on those areas which do become designated as energy site locations by this agency.

SENATOR McGAHN: I think as a result of the testimony today, we recognize that as a weakness and certainly in the markup of this Bill, that will be basically taken care of. But I was just simply trying to say here in that area also I think it might be well worth while to recognize the fact that judicial decisions have also pre-empted local zoning and this has not been the legislature doing that.

What would you then ask this Committee as far as this particular Bill is concerned; I mean from a constructive standpoint, other than simply taking and exempting Lower Alloways Township? Let me address --

MAYOR DONELSON: Can you give me assurance that Lower Alloways Creek would, in

1 fact, be exempted?

2 SENATOR McGAHN: No, I can't.

3 MAYOR DONELSON: How can I speak to  
4 the Bill otherwise?

5 SENATOR McGAHN: Nobody can give you  
6 that, because you have already made your  
7 determination that you do have an energy center  
8 there at the present time. My question to  
9 you is this: Dr. Morell brought up the issue  
10 of the gross franchise tax going back to  
11 municipalities that have at the present time --  
12 that do have these type of facilities, and  
13 he made the statement he thought there should  
14 be some change. I will address myself now  
15 concerning actually the tax going back to --  
16 would Lower Alloways be agreeable to the fact  
17 that actually the amounts of money that you're  
18 receiving back in gross franchise taxes as  
19 a result of this be allocated statewide?  
20 You'd be very foolish if you didn't. No  
21 answer noted. Thank you very much for your  
22 testimony. I think that, very frankly, we  
23 are of accord at the present time. S1407  
24 as written, certainly requires a lot of work.  
25 I would like to say one other thing, too. I

1 think as far as the makeup of the Chief of  
2 Commission is concerned, one must realize that  
3 there were several overlapping Bills in at  
4 the same time. Frankly, this overlaps to some  
5 degree the State Energy Office, and very honestly,  
6 a number of these functions could be under  
7 the State Energy Office if the State Energy  
8 Office would be upgraded either to department  
9 status, I think, because of the situation we  
10 find ourselves involved in, this could even  
11 be a cabinet rank as far as the State is  
12 concerned. So that there should not then be  
13 overlapping jurisdictions. But all of these  
14 functions can be placed under one single head  
15 instead of having vulcanization of the functions.

16           MAYOR DONELSON: Sir, may I ask a  
17 question?

18           SENATOR McGAHN: Sure.

19           MAYOR DONELSON: Would you agree that  
20 Lower Alloways Creek is doing its part in  
21 providing power to the State of New Jersey?

22           SENATOR McGAHN: Personally, I think  
23 it's more than doing its part.

24           MAYOR DONELSON: Do you feel, in  
25 light of that, that we're warranted in requesting

1                   an exemption for Lower Alloways Creek?

2                   SENATOR McGAHN: I think you're  
3                   warranted in requesting this. However, by  
4                   the same token, too, I don't think that  
5                   simply coming up and writing any particular  
6                   legislation this then would be determination  
7                   as far as, number one, the DEP under the  
8                   CAFRA Act, because remember one thing, right  
9                   at this point in time, the chances are if  
10                  construction permit were not already issued,  
11                  if a new facility would be built there, there  
12                  is a question whether permission would be  
13                  given by the DEP or the question is that they  
14                  may make provisions so stringent that it could  
15                  not be. And this is something basically I  
16                  cannot answer. However, if you're talking  
17                  in terms of exemption, I think it's something  
18                  that can be considered. But by the same token,  
19                  I think it is something that has to be  
20                  considered by the entire Committee.

21                  MAYOR DONELSON: Would you, as a  
22                  proponent of the Bill, sponsor that particular  
23                  piece of exemption?

24                  SENATOR McGAHN: No, I don't think  
25                  I would. But I think Senator Keane would.

1                   MR. HORNER: I think that Lower  
2 Alloways Creek wouldn't say that it would have  
3 to be an exemption just for it. It would be  
4 an exemption for any municipality that did  
5 provide siting for up to a certain amount of  
6 energy production. It would have to be some  
7 kind of objective standard beyond which no  
8 municipality would become an unwilling site  
9 for further and additional units.

10                  SENATOR McGAHN: As a humorous side,  
11 suppose we built it on the Delaware portion  
12 of Artificial Island?

13                  MR. HORNER: I'd just as soon you  
14 didn't suggest that.

15                  SENATOR McGAHN: Thank you very much,  
16 Mayor.

17                  MAYOR DONELSON: Thank you very much.

18                  SENATOR McGAHN: William Beren?

19                  MR. BEREN: Thank you, Senator McGahn.  
20 My name is Bill Beren. I'm a lobbyist for  
21 the League for Conservation Legislation, New  
22 Jersey's statewide citizens environmental lobby.  
23 I must congratulate you on your ability to  
24 stand up there and listen to people all day.  
25 I think I'm more wiped out than you are just

1 listening down here.

2 SENATOR McGAHN: I'm sitting.

3 MR. BEREN: Sitting; it shows you  
4 that I can't even see straight anymore. Basically,  
5 I think that the debate here today and the  
6 amount of interest in the different sides of  
7 the issues that have been presented so far  
8 speak more eloquently than this paper can  
9 ever do as to the needs for the type of  
10 legislation which you're sponsoring, which is  
11 an objective, long-range study of the impli-  
12 cations of nuclear power and what it really  
13 means for the residents of the State of New  
14 Jersey. We've heard comments today by  
15 industry that there's adequate fuel for  
16 expansion of nuclear power plants. Yet last  
17 year Westinghouse defaulted on its contract  
18 to deliver nuclear fuel. We've heard that  
19 nuclear power is cheaper than coal. But a  
20 study recently by Charles Komanoff of New  
21 York City, looking at all the power plants  
22 throughout the country, and projecting future  
23 costs until 1985, showed that coal, in fact,  
24 is cost competitive with nuclear power. We've  
25 heard that there is, in fact, an existing

1 technology to handle nuclear waste, yet I have  
2 never seen any of that actually take place or  
3 anything that I would be satisfied to call  
4 a permanent solution to the waste problem.

5 Now, therefore, I would urge you,  
6 as sponsor of the legislation, and the rest  
7 of the Committee to act quickly on this Bill  
8 1494 to report it out of Committee, send it  
9 to the floor for a full debate by the entire  
10 Senate and get on with the business of  
11 actually looking at the implications in terms  
12 of an environmental cost, in terms of economic  
13 cost, in terms of safety and all the other  
14 factors that are mentioned in your Bill, and  
15 the implications that those have for the  
16 State of New Jersey. Whether we choose to  
17 rely on nuclear power or not is not an issue  
18 that's the province of the technicians. It  
19 involves basic political decisions which have  
20 to be decided by the people, who will be both  
21 the beneficiaries of the power and the victims  
22 of any problems with nuclear power. We're  
23 literally playing Russian roulette with our  
24 lives and our futures, gambling that technical  
25 solutions to such problems as storage of

1 nuclear waste can be found in the near future,  
2 despite a twenty-year history of one ghost  
3 chase after another in the futile search  
4 for a solution. If we take such a gamble,  
5 if we decide that, in fact, nuclear power is  
6 worth the cost in terms of benefits of a short  
7 power supply, then that decision has to be  
8 done with the full knowledge and consent of  
9 the public and of a public which is fully  
10 informed about the true cost of nuclear energy.  
11 This hearing, having people come up and trade  
12 charges with no cross-examination, no in-depth  
13 analysis of the issues, does not constitute  
14 the type of forum which is necessary to go  
15 into these issues fully. And I think that  
16 your Bill sets up an objective citizens'  
17 panel, saying there should be an environmentalist  
18 on it; there should be industry representatives  
19 on it, and it sets up the time limit and the  
20 issues to be explored and it's the best forum  
21 for this type of discussion. And I again  
22 urge quick action on the Bill.

23 One of the benefits of 1494 is that  
24 it deals with the energy problem in a fairly  
25 comprehensive way. The DEP and the PUC now

1 have limited review power over individual  
2 plants; but they're making decisions on a  
3 piecemeal base looking at the impacts of a  
4 single plant. Instead, we as a State and a  
5 society should be looking at the long-term  
6 implications that a nuclear base economy  
7 holds in store for us. And this has to be --  
8 it cannot be dealt with in isolation by a  
9 plant by plant basis or even on the basis of  
10 1721 which deals with a few select safety-  
11 related problems. 1494, the study involving  
12 that, also would lead to the asking of  
13 questions such as, if we go to coal and we  
14 look at the alternatives to nuclear power  
15 what are the environmental costs of coal.  
16 And Can solar, wind, hydrogen and other  
17 what's been labeled today as exotic energy  
18 sources, take up some of the slack if we decide  
19 not to go nuclear. We don't know the answers  
20 to these questions. They're very real questions.  
21 And they're fully aware of the environmental  
22 impacts of relying more heavily on coal. They're  
23 serious. We have to look in an objective  
24 basis at whether the cost of coal versus the  
25 costs of nuclear can be balanced in some way.

1 Let me skip to the question of facility  
2 siting and answer the question which has been  
3 asked many times over today. The League for  
4 Conservation Legislation has long supported  
5 a rationalization of the State's facility  
6 siting procedure for locating new electrical  
7 generating facilities. So we very strongly  
8 agree that there's a very definite role for  
9 the State to play in deciding where power  
10 plants are to be sited and deciding what kinds  
11 of power plants are being used to generate  
12 our power. By bringing environmental concern  
13 to bear early on in the site selection process  
14 and providing for citizen review of the  
15 utilities' long range construction schedules,  
16 such legislation will smooth out a path  
17 which is now potholed by conflicting layers  
18 of regulatory activities, citizens' views and  
19 other avoidable delays. But I'd like to  
20 point out that contrary to popular opinion,  
21 environmental intervention has not been a  
22 major delaying factor as far as the construction  
23 of nuclear power plants goes. According to  
24 a study done by a Harvard professor named  
25 Buck only a small percentage of the construction

1           delays were attributable to environmental  
2           and citizen oppositions. Rather they were  
3           the result of utilities' financial instability  
4           at the time, union problems and other  
5           construction-related difficulties. In a few  
6           cases where the delay was blamed on citizen  
7           intervention more than likely was brought on  
8           by the utilities or the regulatory agencies  
9           flagrant disregard for law and/or the public  
10          interest. Just to show examples, the  
11          Calvert Cliffs plant in Maryland was delayed  
12          almost two years because the Atomic Energy  
13          Commission at that time made the unilateral  
14          decision that it was uniquely exempt from the  
15          requirements of the National Environmental  
16          policy Act and refused to prepare an environ-  
17          mental impact statement. In California,  
18          another plant was delayed, the Bodega plant,  
19          and in fact, defeated when it was found out  
20          that the AEC was willing to locate a plant  
21          even though it was located on top of an  
22          active earthquake fault. And here in New  
23          Jersey, citizen groups are contesting a  
24          CAFRA permit that was issued to the Hope Creek  
25          plant on the grounds that such by CAFRA specific-  
            ally prohibits the approval of a nuclear power

1 unless a satisfactory solution to the waste  
2 disposal problem is found.

3 Questions like these should be brought  
4 up in the early stages of the planning before  
5 the utility has invested too much time and  
6 too much money. And in this way an open  
7 planning process might cause some initial  
8 delays but I believe over the long term it  
9 would smooth out the process and leads to a  
10 quicker solution of the problems than the  
11 case is now.

12 This brings us to a discussion of  
13 S1407. I find this 1407 an arrogant, insulting  
14 piece of legislation which should never have  
15 been introduced. And the three years I've  
16 been a lobbyist I've never seen a Bill with  
17 the hutzpa to include in its preamble an  
18 inference that those who disagree with it are  
19 quote, extremists who view the problem, quote,  
20 without imagination and who are pursuing  
21 quote, their respective and blindly in a  
22 vacuum without reference to the qualities and  
23 characteristics, demands and requirements of  
24 the other. Such a statement is preposterous,  
25 especially given the Bill's obvious bias in

1 favor of the business community. Far from  
2 balancing environment and economic objectives,  
3 the ~~SEFA~~ Act would remove responsibility from  
4 environmental protection from those best  
5 qualified to judge the impact of energy  
6 facilities on the environment. I think the  
7 other comments I have regarding what SEFA  
8 does and what it should do have been repeated  
9 many times before.

10 Let me just comment that I believe  
11 that S1407 should be scrapped. There is too  
12 much stuff wrong with it. And we should start  
13 over from scratch. I would much prefer to  
14 start with a Bill which unfortunately is a  
15 Republican-sponsored Bill, and I realize the  
16 political problems inherent in that. But if we  
17 look at A1525 sponsored by Tom Kane which is  
18 based on the Maryland statute, it provides a  
19 much more balanced approach to energy facility  
20 siting and I think it would be a more appro-  
21 priate piece of legislation to work with.

22 Let me just state two particular  
23 points that I'm very much concerned with to  
24 highlight them. One is the need for a two-  
25 tier licensing approach rather than a single

1                 one which is embodied in SEFA, so that there  
2                 is a separate environmental review of the  
3                 adequacy of the site for any energy use and  
4                 then a separate evaluation of the particular  
5                 problems associated with the individual project  
6                 in the construction phase. Secondly, I'd  
7                 like to look toward the New York State model  
8                 legislation which provides that the utilities  
9                 pay twenty-five thousand dollar application  
10                fee for each facility that they plan to  
11                construct, and that twenty-five thousand  
12                dollars is then given in a grant to a local  
13                municipality to pay for expert witnesses and  
14                to give them the means, the financial means,  
15                to participate in the hearings in a full  
16                partnership. And I would hope to extend that  
17                further to include making available to  
18                citizen groups the funds to bring in expert  
19                witnesses from around the country in the same  
20                way that utilities do now.

21                 I'd just like to comment on the point  
22                 that Mr. Reifer brought up in questioning  
23                 Hazel -- I can't remember her last name --  
24                 Gluck, yes -- in that I do not believe that  
25                 the formula established in S624, the Solid Waste

1 Management Act, is an appropriate one for  
2 energy facility siting, the major difference  
3 being that in the Solid Waste Management, the  
4 county is in a position to be a leader in  
5 the situation. The county is in a position  
6 to draw up plans for disposing of solid waste  
7 and to implement those plans. When we're  
8 talking about energy siting, the county does  
9 not have that luxury. The plants that are  
10 proposed are proposed by private industry.  
11 Not only proposed by private industry but  
12 they're proposed by industries which have a  
13 geographical range which far exceed the county  
14 line. In fact, they far exceed the State  
15 line. We're dealing with utilities that are  
16 providing public service, for instance, which  
17 provides at least some of its power from  
18 plants located in Pennsylvania. And what we  
19 have to do is somehow devise a regional  
20 system of regulations, which I believe is  
21 absolutely necessary, which unfortunately in  
22 this case would probably have to be a reactive  
23 regional review rather than a positive regional  
24 review, actually advocating policy, and also  
25

1 to develop an interstate region so that citizens  
2 can comment on utility actions which cross  
3 state lines as well. And I'll be glad to  
4 answers any questions you might have.

5 MR. REIFER: Mr. Beren, thank you  
6 very much for your testimony, that it's always  
7 helpful to the Committee to have something  
8 so positive and constructive and sympathetic  
9 to work with.

10 MR. BEREN: Any time.

11 MR. REIFER: Would you hold that  
12 environmental quality and economic development  
13 are inherently incompatible and mutually  
14 exclusive goals and objectives?

15 MR. BEREN: Absolutely not. We have  
16 been saying that they are not for years.

17 MR. REIFER: To carry along with that,  
18 wouldn't you say that the only ones who would  
19 conclude that they would be mutually exclusive  
20 would be extremists, either one side or the  
21 other side; the labor union person who, for  
22 very understandable reasons, thinks of jobs  
23 as the ultimate aim and objective of his  
24 life, or the environmentalist who considers  
25 the preservation of the environment the ultimate

1 aim and objective of his life. Both very  
2 understandable but both on the extreme; correct?  
3

4 MR. BEREN: Yes, but --  
5

6 MR. REIFER: And so they would be  
7 extremists.  
8

9 MR. BEREN: Yes. The reason why I  
10 raised --  
11

12 MR. REIFER: And you are not an  
13 extremist, and you believe that economic  
14 development and environmental quality are  
15 compatible goals.  
16

17 MR. BEREN: Yes. The only thing --  
18 the reason why I said it is that in reading  
19 the Bill, I get the clear implication and the  
20 clear inference that this Bill -- that S1407  
21 in fact, merges those interests and therefore,  
22 anyone who disagrees with S1407 is a priori  
23 an extremist. And I very strongly disagree  
24 with that because I do not think that S1407 is  
25 a perfect Bill by any means. Far from it;  
I find it very much flawed from many number of  
perspectives, particularly in the way that it  
deals with environmental concerns and tends to  
override and attempts to pre-empt existing  
State laws that have been passed with much

1 citizen pressure, such as CAFRA, the Wetlands,  
2 Wetplains Act, etc, in the same way that the  
3 county officials earlier today were complaining  
4 about the way it seeks to override community  
5 control. This is my concern. And I do not  
6 like to see Bills which set themselves up,  
7 as I feel this one does, as the be all and  
8 end all solution to a problem.

9 MR. REIFER: Well, I think, Mr. Beren,  
10 in fairness of the sponsors of the Bill, if  
11 you heard Senator Dodd's testimony this  
12 morning and Senator McGahn's testimony this  
13 morning, they specifically made the point  
14 that the legislation was not the be all and  
15 end all. The essential point in the legislation  
16 was that there was a common meeting ground  
17 between the oftentimes -- in New Jersey too  
18 oftentimes conflicting interests of the  
19 environmental quality and economic development,  
20 and not that anyone who would disagree with  
21 the specifics of this Bill would be incorrect  
22 or inexperienced, but that someone who main-  
23 tains one or the other of those positions.

24 Nevertheless, let's move on just a little  
25 bit if we could. Assemblyman Kean's Bill.

1           Much of your testimony is directed to electric  
2           generating stations, and that is a primary  
3           concern of yours; what about all of this  
4           other energy and energy-related facilities,  
5           the total impact of which may, from an  
6           environmental point of view be far more  
7           serious than just the energy -- the electric  
8           generating stations?

9           MR. BEREN: I have no problems with  
10          expanding the concept of 1525 to include other  
11          energy facilities other than electric power  
12          generations. My support for 1525 was really  
13          focused on the process that it sets up to  
14          deal with siting rather than the particular  
15          facilities that it regulates.

16           MR. REIFER: Do you have any  
17          difficulty whatsoever with the creation of  
18          a State energy facility agency?

19           MR. BEREN: As established in 1407,  
20          yes. I skipped over it because it's been  
21          mentioned before. But I very strongly would  
22          like to see a consolidation of energy  
23          regulations within the State rather than --

24           MR. REIFER: Under whose auspices  
25          should that consolidation take place?

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MR. BEREN: It's our recommendation  
the State Energy Office.

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MR. REIFER: And then presumably to  
raise that to department status; is that  
something that you would support?

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MR. BEREN: Yes, we have in the past.

MR. REIFER: What other functions

that are presently performed by agencies in  
State government should be centralized in a  
State energy department?

MR. BEREN: As far as I'm aware,

practically every single State agency, every  
single department, with the possible exception  
of banking and insurance, has some regulatory  
authority over energy. DEP certainly has its  
hand in the pie. The labor and industry has  
its hand in the pie. Even the department of  
Community Affairs is in charge of the infor-  
mation program and the information program  
for low income dwellers. And I'd like to see  
a consolidation of all these programs within  
the State Energy Office, or not necessarily  
a consolidation within but that's one way of  
approaching it is to consolidate this into a  
super energy agency. The other way of doing it

1       is to set up, which would be innovative for  
2       State government, I believe, which is the  
3       current thinking of the State Energy Office  
4       anyway, is to have a    small energy office  
5       which would oversee and coordinate the  
6       activities of the various departments, leaving  
7       each department to really deal with the  
8       issues that they have expertise over best,  
9       such as DEP over pollution control and siting,  
10      but feeding in some way into a central office  
11      so that the efforts of DEP and labor and  
12      industry and community affairs and everyone  
13      else can be coordinated into a single positive  
14      state approach . toward energy policy. Those  
15      are the two different ways I could see such  
16      consolidation working.

17            MR. REIFER: But they would have to  
18       be coordinated by someone personally. You  
19       can't have 12 people dispatching orders.

20            MR. BEREN: Yes, absolutely.

21            MR. REIFER: Are you -- and I put this  
22       to you as a genuine question -- aren't you  
23       somewhat concerned if you had a department of  
24       energy or if you had a centralization of  
25       concerns for energy in New Jersey that the

1 environmental objective presently exercised  
2 by the Department of Environmental Protection  
3 would be lost in the pursuit of energy  
4 objectives by the new department?

5 MR. BEREN: That depends on how the  
6 department is set up. Obviously, I would  
7 support the establishment of a department or  
8 of an expanded energy office that does not  
9 do that.

10 MR. REIFER: That had the environment  
11 as its primary concern?

12 MR. BEREN: Or that left environmental  
13 decisions to DEP and used DEP's expertise in  
14 developing the energy policy of the State.

15 MR. REIFER: What I'm trying to get  
16 to is that is the bottom line going to be the  
17 environment? Is the decisive criterian in  
18 each and every point of conflict going to be  
19 the preservation of the environment?

20 MR. BEREN: No.

21 MR. REIFER: Then there may be some  
22 times when an environmental interest may have  
23 to be sacrificed to another interest?

24 MR. BEREN: Well, if you accept that  
25 scenario, then you accept the philosophy that

1 environmental and economic interests are  
2 incompatible. I think that environmental  
3 interests and economic interests are compatible  
4 and it's just a question of researching and  
5 developing your alternatives to the point where  
6 we can meet our energy needs without the  
7 sacrifice of environmental control. And I  
8 believe there is a very possible and very  
9 plausible scenario. And that's what I would  
10 like to work for and what my organization  
11 would like to work towards.

12 MR. REIFER: Thank you.

13 SENATOR McGAHN: Bill, what I think  
14 you're saying is that there is some instance,  
15 some economic and environmental tradeoffs that  
16 have to be considered. I would be very  
17 concerned, very frankly, if there was any  
18 Bill which you did not have criticism concerning,  
19 because then I would think we have come up  
20 with a perfect Bill. And frankly, no Bill is  
21 perfect. I see, of course, actually, I think  
22 that you do favor the concept of A1525 and  
23 I think as Mark pointed out here that's  
24 limited in scope. It does not concern itself  
25 or cover any energy-related facilities which is

1           a serious deficiency. Of course, it also sets  
2           up an energy facility trust fund, but it  
3           also empowers land banking or energy site  
4           banking, and those can be accomplished through  
5           basically, I think, the same mechanism that  
6           we're talking about here. Point again is this  
7           It's easy to say at so many mils per kilowatt  
8           hour on the electric bill to simply take and  
9           finance this. But I think at the present time  
10          at the present climate with the electrical  
11          bills as they are, I'm not too sure that the  
12          citizens of this State would frankly be  
13          terribly enthusiastic about any addition to  
14          their bill at all, even though it might be  
15          eventually in their own better interest. This  
16          is a political judgement that has to be made.

17           MR. BEREN: Well, again, Joe, I have  
18          to remind you that I did not say that I wanted  
19          to pass 1525 as it is. There are problems  
20          with 1525.

21           SENATOR McGAHN: Oh, I would be  
22          concerned if you said you wanted to pass it  
23          as it is.

24           MR. BEREN: What I was trying to focus  
25          in on in 1525 was the manner in which they

1                   dealt with exactly this question of balancing  
2                   environmental and economic interests, which  
3                   I think have the review process and the  
4                   provisions for public input and the very --  
5                   the guarantees that were built into 1525 to  
6                   make sure that the public had a say in this,  
7                   on 1407, which has the appearance and I think  
8                   in fact it does, when you look at how it will  
9                   operate, completely ignoring environmental  
10                  and public interests at its will. There is  
11                  no check and balancing in there. I believe if  
12                  there is a check and balance built in 1525  
13                  it would urge the Committee to look at the  
14                  process that 1525 establishes.

15                  SENATOR McGAHN: We're cognizant of  
16                  the process and the chances are that this  
17                  will be looked into. Thank you very much.

18                  MR. BEREN: Thank you.

19                  SENATOR McGAHN: At this time, I'd  
20                  like to have a ten-minute break for the  
21                  stenographers, if you will, or fifteen minutes.  
22                  We'll come back promptly at six o'clock, where  
23                  the first witness will be Mr. Richard Wilson.  
24                  Let me say one thing; I think that unfortunately  
25                  this has gone a lot longer than we had

1 anticipated. Certainly more people were here  
2 to testify. Generally, this is where it  
3 always ends up, most of these public hearings,  
4 regardless of what the situations might be.  
5 We have no control over the time -- we try  
6 to limit somebody to ten minutes, but it's  
7 impossible to do this and I know that there is  
8 a number of people who have not been heard  
9 as yet. Anybody who wishes to continue and  
10 will be testifying, we'll take testimony for  
11 another hour because we do have to stop at  
12 seven o'clock. These are on a contract basis.  
13 The court stenographers are not the senate  
14 or the legislative stenographers. They're  
15 hired and they must leave at seven o'clock.  
16 We cannot have a public record beyond that  
17 point. I would say that for those who wish  
18 to stay and testify in the ensuing hour and  
19 hopefully we can take an additional eight or  
20 nine people, but those who have not testified  
21 I will consult with Senator Russo and we'll  
22 try to set up an additional meeting at a time  
23 that's going to be convenient. We'll notify  
24 these people and, of course, make a listing  
25 of when to appear and we'll see to it that this

1           is adhered to. This is the best compromise  
2           that can be made. I must apologize under the  
3           circumstances but I don't think there is  
4           anything else we can do.

5           MR. MATTEK: Excuse me; whoever would  
6           still like to testify yet today, would you  
7           please raise your hand and give us some  
8           indication of how many people still want to  
9           speak?

10          (At which time a short recess is taken.)

11          SENATOR McGAHN: May we reconvene,  
12          please. Our first witness will be Mr.  
13          Richard Wilson.

14          MR. WILSON: Good evening. I am  
15          Richard M. Wilson, senior Vice President of  
16          Atlantic City Electric Company, which provides  
17          electric service to a million people here in  
18          our 2700 square mile service area, here in  
19          southern New Jersey. In consideration of the  
20          hour, and in consideration of the speakers  
21          to follow, I will make my comments as brief  
22          as possible and depend upon my written  
23          statement.

24          First, with regard to 1407, we would  
25          be delighted with a one-stop siting agency,

1 if indeed such an agency could be clearly  
2 established. However, we have serious  
3 reservations that this Bill as proposed would  
4 produce the desired goal. Instead, in our  
5 opinion, it could very well result in simply  
6 establishing yet another step for siting  
7 approval, and merely add more frustration and  
8 delay. From our observation, this appears  
9 to be the experience in some other states  
10 that have similar siting laws.

11 Now, in my prepared comments, I have  
12 a number of points which we believe support  
13 our position so that will limit my remarks  
14 on 1407. And if you will permit, I would like  
15 to turn to 1494 and 1721, and I would like  
16 to discuss those two bills together, because  
17 they contain similar provisions and we believe  
18 the consequences of enacting either of these  
19 Bills will produce similarly drastic results.

20 At the outset, I must state  
21 unequivocally that Atlantic Electric recommends  
22 against the passage of these Bills.

23 Indeed, we respectfully suggest that  
24 these Bills be labeled "The New Jersey Power  
25 Shortage and Unemployment Enhancement Act."

1                   Now, I do not intend to be facetious  
2 by this remark. We're seriously concerned  
3 that the Bill's sponsors have not adequately  
4 considered the real consequences should these  
5 Bills become law.

6                   Now, we understand of course, that  
7 these Bills are proposed in response to the  
8 concern about nuclear power plant safety  
9 among certain members of the public. To a  
10 rather large degree this has become an  
11 emotional issue, and emotional issues are  
12 difficult to deal with. But in the real world,  
13 we need to look beyond the emotions and  
14 examine the facts.

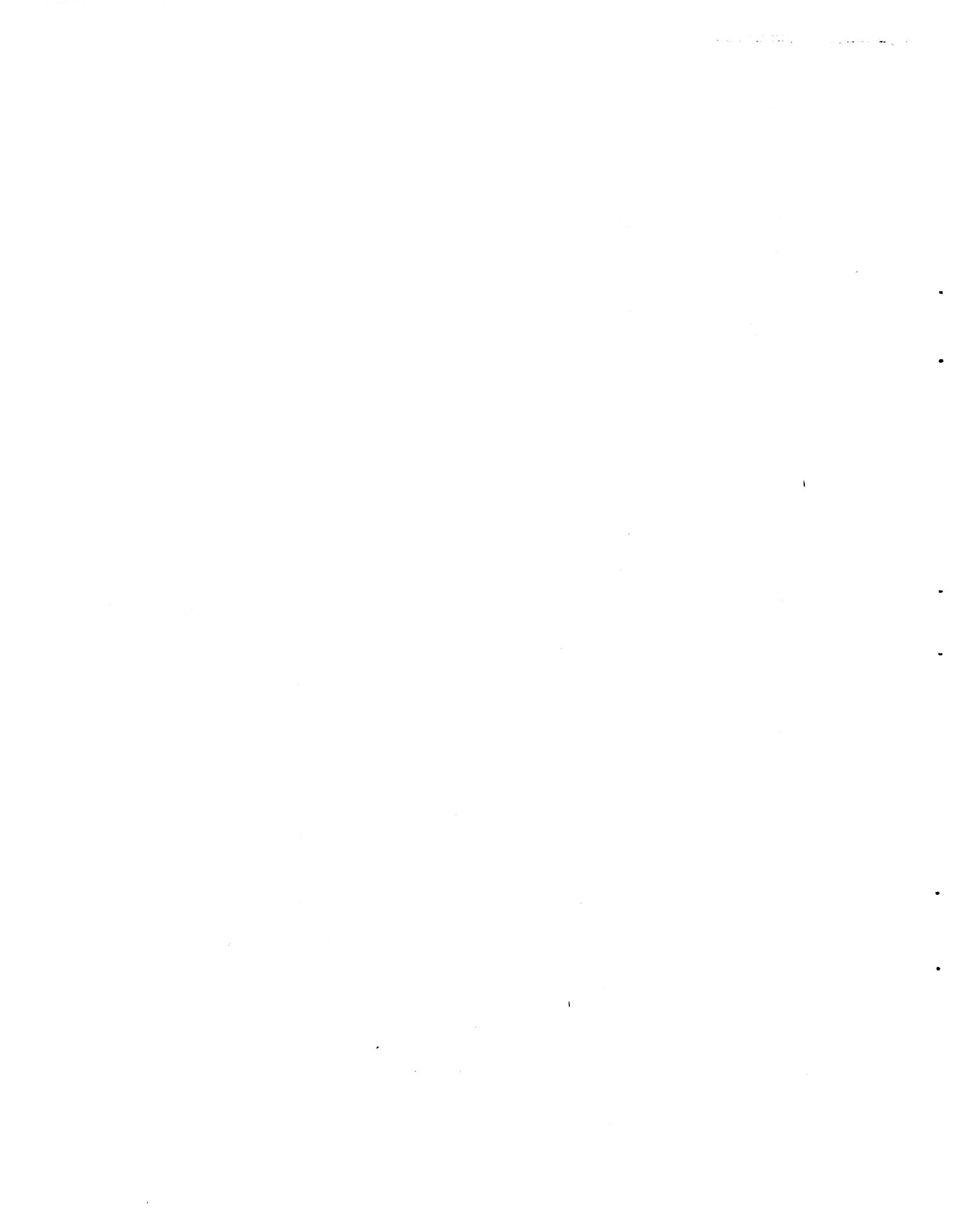
15                  Now, as we interpret these Bills,  
16 they essentially mandate a moratorium on  
17 nuclear power in the State of New Jersey.

18                  S1494 imposes a moratorium which could be  
19 lifted after four years if a finding is made  
20 that five conditions are met. The condition  
21 requiring a full scale demonstration of the  
22 emergency core cooling system is, if not  
23 impossible, certainly not feasible for a  
24 variety of good reasons. One of the conditions  
25 is full insurance liability. Here we have a

1 conflict with Federal Law. I will not attempt  
2 to discuss this subject because it was presented  
3 most eloquently by a previous speaker. However,  
4 it both a matter of fact and a matter of law,  
5 and if it is to be argued, that argument will  
6 take place in another forum.

7 Therefore, one year after the  
8 enactment of this Bill, we will have a 40 percent  
9 reduction in Atlantic Electric's existing  
10 nuclear generating capacity and a 10 percent  
11 reduction each year thereafter. The Bill  
12 demands this if the insurance condition is  
13 not met by then. We would similar capacity  
14 reductions in nuclear capacity scheduled for  
15 service in 1979. And furthermore, the  
16 construction of units scheduled for service  
17 in 1984 and 1986 would cease.

18 Not only would there be a moratorium  
19 on our plants for future capacity additions,  
20 there would also be a reduction in our existing  
21 capacity. Yet, we are faced with a requirement  
22 to serve additional loads. Now, we could try  
23 to turn to alternate sources to supply these  
24 needs. But given federal restrictions on oil  
25 burning and proposed limitations on the use of



1 combustion turbines, we have very little  
2 confidence in our ability to provide the  
3 required replacement capacity from these  
4 sources within the time frame involved.

5 It follows then, if you pass these  
6 Bills, you may have indeed legislated a power  
7 shortage in New Jersey.

8 Now, inasmuch as these hearings are being  
9 held in Atlantic City, I think it is appropriate  
10 for me to comment on the possible impact of  
11 a nuclear moratorium in Atlantic City.

12 The recent passage of a casino  
13 gambling referendum gave us all great hope  
14 and optimism for the future of Atlantic  
15 City. We at Atlantic City Electric share in  
16 that hope and optimism, and I know these  
17 feelings are shared by one or more of the  
18 sponsors of these Bills. In fact, Senator  
19 McGahn played a key role in generating our  
20 high hopes and is most active in pursuing them.

21 Now the hope and optimism is not  
22 based on casino gambling alone, but rather on  
23 the establishment of new hotels, restaurants  
24 and other facilities. We look forward to  
25 restoring the greatness of our city and the

1 realization of its full potential.  
2

3           But the new hotels, the new restaurants,  
4 and the new facilities -- the very future of  
5 Atlantic City -- will require additional  
6 amounts of electrical power. We at Atlantic  
7 City Electric are prepared to provide that  
8 power. However, if there is to be a moratorium  
9 on nuclear facilities and if we are forced  
10 to turn to other sources, although I pledge  
11 we will do our very best, I can give no  
12 assurance that we will be able to provide  
13 that additonal electric power when required  
14 to meet Atlantic City's needs. Our feelings  
15 of hope and optimism may be changed to one  
16 of anxiety and pessimism.

17           I suggested earlier that these Bills  
18 be labeled "The New Jersey Power Shortage  
19 and Unemployment Enhancement Act." If we  
20 are unable to meet the requirements because  
21 of a nuclear moratorium, the people of  
22 Atlantic City may well label these Bills the  
23 "Anti-Casino Gambling Act."

24           Now, our thanks to the Committee  
25 for the opportunity to appear here today;

1           we can fully understand that the Committee has  
2           a sincere desire for assurance with respect  
3           to the safety aspects of the electric energy  
4           options available to us. We also believe that  
5           the Committee is equally concerned about a  
6           continued adequate supply of electric energy  
7           for the economic health and welfare of the  
8           citizens of this State. We do not believe  
9           that these two issues are resolved by the  
10          imposition of a moratorium. Thank you.

11           MR. REIFER: Mr. Wilson, just very  
12          briefly, is there no concern in your mind  
13          whatsoever that there may be some safety  
14          problems with nuclear generation that would  
15          dictate a go slow?

16           MR. WILSON: I feel it's completely  
17          safe with nuclear as I do with any of our  
18          other options and I point out with respect to  
19          exposure in Atlantic City, I work here in  
20          Atlantic City five days a week. I live on the  
21          mainland. I'm pretty close. My daughter lives  
22          there also.

23           SENATOR McGAHN: Mr. Wilson, thank  
24          you very much. I have no questions. Mrs.  
25          Frieda Berryhill.

1           I must say that for the people who  
2       are going to be testifying, we will impose a  
3       ten-minute limitation. Unfortunately that's  
4       the way it has to be.

5           MRS. BERRYHILL: I'm only concerned  
6       with two items in the 1407. Page 2, line 58  
7       which states cooperation with other States  
8       and also with your interpretation of buffer zone.  
9       I would like to point out that I live in  
10      Delaware. However, there are twice as many  
11      people living in Delaware within a five-mile  
12      radius of Hope Creek in Salem than there are  
13      on the New Jersey side. So I am profoundly  
14      affected. There are about eight hundred  
15      people on the Delaware side as opposed to  
16      four hundred people on the New Jersey side.  
17      And I'm very much affected what takes place  
18      in New Jersey. I would like to address myself  
19      to two points. One was made by Mr. Wallis  
20      who urged you not to single out the nuclear  
21      industry. I would like to point out it's  
22      only the nuclear industry which can operate  
23      under Price-Anderson so it needs to be singled  
24      out. The second point I would like to make  
25      that several times a reference has been made

1 to the defeat of the nuclear referendums in  
2 other states. However, we are all very much  
3 aware that utility money was sent all the way  
4 to California by every utility here, and  
5 that Congressman Hughes conducted a very  
6 simply poll as was pointed out before was done  
7 with floating nuclear power plants and this  
8 very simple poll with simple language, without  
9 involvement of utility money, pointed out in  
10 Congressman Hughes' district that the citizenry  
11 is overwhelming opposed to nuclear power plants.

12 Also it was pointed out that there  
13 are split opinions on nuclear power. However,  
14 the AEC had operated under the cloak of  
15 secrecy and the freedom of information that  
16 is only two years old. Experts tell me it  
17 takes about five years to change public  
18 opinion, so we have only had about two years  
19 access to information.

20 The situation developing in Lower  
21 Alloways Creek with four nuclear power plants,  
22 this is not true. Delmarva Power and Light  
23 Company has just announced its intention to  
24 build two more reactors on this side of the  
25 river, so we are talking here of six nuclear

1 reactors in this area. What is significant  
2 here is that there are five situations con-  
3 tributing to forming a composite that should  
4 offend even the most ardent proponent of  
5 nuclear power.

6                   Situation one: Although Hope Creek  
7 in Salem, as I said, located on the Jersey  
8 side, the Lower Alloways Creek Township, sent  
9 a resolution to all New Jersey agencies including  
10 some in Delaware which was also sent to  
11 Dr. Schlesinger and President Carter, and this  
12 resolution states as follows:

13                 Whereas this concentration of four  
14 nuclear power plants will comprise one of  
15 the greatest concentrations of nuclear power  
16 plants in any municipality in the United  
17 States or possibly in the world and whereas  
18 according to NRC regulations the permissible  
19 dose of radiation from a cluster of nuclear  
20 power plants is the sum dose of each plant,  
21 so that the radiation dose to citizenry  
22 will increase by four, and I add by six. My  
23 study of nuclear power plant sitings leads me  
24 to believe that indeed this situation doesn't  
25 exist anywhere in the world.

Situation two: Near Diablo Canyon  
in California just three miles from the Hosgri  
Fault stands a nuclear power plant almost  
completed which may or may not gain permission  
to operate. The NRC says the Fault had not  
been discovered when construction permit was  
issued. However, several groups had raised  
questions about the geological study. In  
Delaware we know a Fault exists running right  
down the middle between the six nuclear reactors.  
In official records lists about 75 earthquakes  
of varying degrees over the last 200 years.  
There has been increased activity lately,  
particularly the last few months and officials  
predict that this part of the East can expect  
more earthquakes. This matter is covered in  
Nucleonics Week of February 17, 1977. Utilities  
are not always truthful concerning earthquakes  
Faults. And Virginia Power and Electric has  
been fined for lying about their earthquake  
Faults under the North Anna project.

1 Service and Gas defending construction of  
2 Hope Creek did an environmental impact study  
3 on this LNG shipment, and as you know, LNG  
4 is extremely explosive. Should there be a  
5 mishap on the river during which gas escapes  
6 without having ignited and reach one of the  
7 plants on the banks, a disaster of unequaled  
8 proportions could occur. PSE & G in its  
9 safety evaluations did not include rammings,  
10 fixed objects, dredging, which is a constant  
11 activity, small boat traffic, which is  
12 considerable, and most significant is the  
13 fact that the channel is only 40 feet deep.  
14 The depth of the ships is 36 feet. Here we  
15 have vessels, loaded with dangerous cargo,  
16 moving down the river between these reactors,  
17 460 shipments a year.

18                   Situation five: Within the 20-mile  
19 radius of the proposed complex of six nuclear  
20 reactors the population density is greater  
21 than anywhere in the world for that number of  
22 reactors. On the Jersey side in addition  
23 to several towns there's much industry including  
24 enormous DuPont Chambers Works. On the Delaware  
25 side there's the large University of Delaware

1 and the Greater Wilmington Airport.

2                   The 1970 figure for this 20-mile  
3 radius is 444,981. The predicted population  
4 density for the year 2000 is over a million.

5                   Situation six: Last August when  
6 Salem I, received its operating license,  
7 NRC reactor Ronald Flugge resigned. He  
8 predicted problems with over-pressurization  
9 with this reactor and accused NRC of eliminating  
10 this particular section of his safety so  
11 that licensing would not be held up. Sub-  
12 sequently several over-pressurization incidents  
13 did occur and various disclosed and undisclosed  
14 mishaps. We've had spills three times of  
15 radioactive water. Human error seems to  
16 abound. But significant is the fact that  
17 neither the NRC or PSE&G know what to do about  
18 the over-pressurization problem. I have in  
19 my possession copies of internal correspondence  
20 between the two parties. And only mandate  
21 and stop-that measures are being introduced  
22 or talked about. One such letter states as  
23 follows: "It was noted in our discussion  
24 with the pressurized water reactor licenses  
25 that for the majority of these plants involved

1 not all potential over-pressurization events  
2 would be prevented by the measures they had  
3 identified and that some of the measures may  
4 have undesirable effects on reactor safety."

5 Not only are we stuck with a compilation  
6 of siting errors but also with reactors  
7 considered unsafe by an expert who resigned  
8 in protest.

9 And in summary, I would like to say  
10 although Delaware officials still insist that  
11 they can evacuate the whole area if necessary,  
12 New Jersey officials readily admit that no  
13 evacuation plan beyond the five-mile radius  
14 exists. I have all the documents with me  
15 except the internal correspondence between  
16 the NRC and PSE&G because it's too voluminous  
17 to carry but I will be glad to supply copies.

18 Now, I ask you again, Bill 1407,  
19 cooperation with other States, how do you  
20 propose to do that? There's a Bill in the  
21 Delaware legislature which intends to do away  
22 with the coastal zone Act, and the comforting  
23 thing that we're told in Delaware that the  
24 prevailing winds go west, so they all go over  
25 to New Jersey so we won't have to worry about it.

1           And I honestly say that rather than worrying  
2           about siting, we have already a potential  
3           situation here, extremely explosive, and I  
4           go before the Delaware legislator. I get no  
5           response. I was in Vineland. I testified  
6           before this Committee a year ago. I get no  
7           response. We are not talking about four  
8           reactors at Lower Alloways Creek; we're  
9           talking about six reactors, and I sincerely  
10          hope that somewhere in this vast machinery  
11          of government somebody will look at this  
12          situation. Thank you very much.

13           SENATOR McGAHN: Thank you very much,  
14          Mrs. Berryhill. I really can't answer your  
15          question except that we do intend to put  
16          windmills on the Delaware side of New Jersey  
17          to blow those winds right back into Delaware.

18           MRS. BERRYHILL: This is no comfort  
19          to me, Senator McGahn. I am deeply serious  
20          about this.

21           SENATOR McGAHN: I realize you are.

22           MRS. BERRYHILL: I have to live here.

23           SENATOR McGAHN: I apologize for making  
24          light of the situation, but we do not have an  
25          answer to that as you well know.

1 MRS. BERRYHILL: Thank you.

2 SENATOR McGAHN: Mrs. Eleanor Coleman.

3 MRS. COLEMAN: This evening I come  
4 to you to represent the Township of Pennsville.  
5 The Township opposes senate Bill 1407, the  
6 State Energy Facility Agency Act, and any other  
7 Bill that creates an agency that will diminish  
8 the role of the local government. The  
9 establishment of the super agency within the  
10 Department of Treasury to administer a single  
11 location permit process to replace the present  
12 system of multiple permit issued by various  
13 state and local agencies is unacceptable.  
14 No single agency can reflect the views and  
15 concerns of our municipality.

16 The two most objectionable portions  
17 of the Act are section 23 and section 30 and  
18 I'm sure you're well aware of what they are.  
19 I have them listed here. I won't read them.  
20 We oppose senate Bill 1721 which supplements  
21 senate Bill 1407 above for the same reasons  
22 listed previously. This bill avoids important  
23 issues such as evacuation and insurance and  
24 allows no consideration for homerule parti-  
25 cipation from the local level of government.

1 There is no guarantee in 1721 that the  
2 Commission during this study is balanced. We  
3 support and urge the adoption of senate Bill  
4 1494, the Nuclear Reassessment Act, which is  
5 an Act concerning the guarantee of  
6 public safety during operation of nuclear  
7 power plants. We are very close to these  
8 power plants we speak of. This Bill allows  
9 for a more balanced review board with a  
10 strictly defined area of study for future  
11 nuclear power plant construction in New Jersey.  
12 The suggested four-year moratorium should allow  
13 the needed time for questions and concerns  
14 contained in this Bill to be adequately  
15 addressed. If and when all questions are  
16 answered, the legal owners of these power  
17 plants should obtain a level of insurance  
18 which will fully compensate the people and  
19 businesses of New Jersey.

20 More detailed comments regarding  
21 these three Bills discussed above will be  
22 included in formal resolutions to be adopted  
23 by the Township of Pennsville. These resolutions  
24 will be forwarded to the Senate Committee and  
25 should be made a part of this public hearing.

1                   Is there a time limit that you would  
2 like to have these resolutions?

3                   SENATOR McGAHN: At least within  
4 30 days, but I'm reasonably certain we are  
5 not getting through these. I'll consult with  
6 Senator Russo and see if we cannot, of course,  
7 have another hearing upon this to accommodate  
8 the people who cannot be accommodated today.

9                   MRS. COLEMAN: Okay; so that the time  
10 may even be more than 30 days. Okay; thank  
11 you very much.

12                  SENATOR McGAHN: Thank you very much  
13 for your kind consideration of the time limit.  
14 Mr. Albert Gant.

15                  MR. GANT: I've cut my report down to  
16 almost a sentence here, but from about three  
17 pages, but beings the time that it is, why  
18 I'll be glad to do it.

19                  SENATOR McGAHN: We certainly  
20 appreciate that.

21                  MR. GANT: I find it very hard to  
22 follow such qualified speakers, but I do not  
23 have -- but I do have a few of my own views  
24 which I would like to pass on to you. I'm  
25 going to make my statements very brief because

1 of the time.

2 First of all, I want to go on record  
3 as supporting senate Bill 1494, the Nuclear  
4 Reassessment Act, and opposing senate Bill 1407  
5 and 1721. This agency which supercedes  
6 municipal and county zoning ordinances and  
7 State environmental agencies such as CAFRA,  
8 WEtlands and Floodplains Act. I am opposed  
9 to nuclear a energy in any form, particularly  
10 nuclear parks. We live in an area where there  
11 are tremors and earthquakes. And like they  
12 tell us there is a 50 million-to-one chance  
13 that anything would happen, but they said  
14 the same thing about the two planes that  
15 crashed down on the island and we have the  
16 same condition with our State lottery with  
17 this million-to-one chance. I feel there are  
18 other sources of energy which has not been  
19 explored such as our own ocean which is only  
20 a couple of squares from here, which is  
21 the greatest source of energy we have, but  
22 no money has been spent to harness it. I  
23 feel that we could put people on the moon,  
24 we can do all these other things, make electric  
25 from nuclear energy and things like that, I

1 feel that some money, either through the  
2 federal government or utilities, somewhere  
3 along the line I feel that we could harness  
4 the ocean which would be of a benefit and  
5 would have an unlimited source of energy. And  
6 I feel that money in that direction will be  
7 well spent.

8 I'm opposed to having 11 people under  
9 the Treasury Department with the power to  
10 dictate to our local municipal and county  
11 governments to tell us what is good for us.  
12 I feel we are getting away from home rule.  
13 Thank you.

14 SENATOR McGAHN: Thank you very much,  
15 Mr. Gant. Mr. Sid Goodman.

16 MR. GOODMAN: Thank you. I will  
17 condense this report. I have all the details  
18 on constructive revisions regarding these  
19 Bills. I am a professional engineer. I am  
20 in responsible charge of a testing laboratory.  
21 This may surprise you, but at one time I was  
22 once very proud of having worked hard to get  
23 United Aircraft to win a contest for a nuclear  
24 rocket. In view of what's been happening and  
25 what I've learned and what has been coming out,

information that has been coming out, I frankly  
feel a deep sense of shame at times that I am  
associated with engineers who have done what  
they've done. I believe that there has been  
a great deal of irresponsibility and I think  
there has been breaches of ethics. But one  
of the -- among the concerns I have here in  
1407 is that it has loopholes which would  
permit abuses for the seizure of property  
without any checks and balances and conflicts  
of interest and such which I'm detailing in  
here and I won't go over that for the present  
time. Now, 1407 were direct studies. Very  
essential studies. One of the basic problems  
is that if access to essential data is  
deliberately withheld, the results of these  
studies are apt to be very misleading and  
result in poor planning. And a prime example  
of this is concerned with the question of how  
much energy does nuclear power really contribute.  
Now, Dr. E.J. Hoffman determined that the  
net energy yield of nuclear fission is actually  
less than five percent. What that means is  
if for every 100 kilowatt hours of nuclear

1 produced you first to consume 95 kilowatt  
2 hours of ordinary conventional energy. Now,  
3 this has never been disproved by the Energy  
4 Research and Development Administration. Instead  
5 Hoffman's request to study the problems further  
6 has been blocked. Instead, ERDA produced a  
7 report in their floating nuclear plant and  
8 what they said was well, the net yield is  
9 not five percent; it's 94.4 percent. But if  
10 you look at the assumptions they made, they're  
11 ridiculous. First of all, they ignore the  
12 relative efficiencies of equipment and what  
13 they simply say is that well, the heating  
14 value of the fuel is what they consider as  
15 a credit. What this really means is that  
16 nuclear wastes which are hot for literally  
17 thousands of years, all this wasted heat  
18 and polluted heat is regarded as a credit.  
19 And the efficiencies that they're attributing,  
20 the relative actual efficiencies of equipment  
21 are completely not considered and this again  
22 introduces a whopping bias. And then they say  
23 nuclear plants operate at 80 percent capacity  
24 when, in fact, they have a hard time operating  
25 at 55 percent and then they finally come up

1       with this 94.4 percent net yield and then  
2       they -- on top of that they conclude the  
3       net yield of nuclear power is comparable to  
4       that of coal power. But the efficiency of  
5       coal plants is higher than those of "nukes."  
6       Furthermore, when all the factors are considered,  
7       the net yield of coal plants is generally  
8       less than 30 percent. And bear in mind that  
9       the coal does not consume enormous amounts of  
10      electricity as is required to enrich nuclear  
11      fuel. And I have proof here, for example,  
12      huge amounts of electricity have been consumed  
13      to produce nuclear fuel to enrich it and I'll  
14      give you a copy of the report here.  
15      For example, by 1972, 116 billion kilowatt  
16      hours of electricity was consumed to enrich  
17      nuclear fuel and only a 164 billion kilowatt  
18      hours of nuclear electricity had been produced  
19      in the United States by that time. Now --  
20      and that's only a small fraction of the total  
21      energy that must be consumed to keep nuclear  
22      power going. It's only 46 percent if you want  
23      to use the same figures which are in the floating  
24      nuke report. Now, I have copies of Hoffman's  
25      studies. If you'd like a copy I could make them

1 available to you. But net yield analysis  
2 depends on another question which is what is  
3 the gross yeild. Now you know how much  
4 energy you get out of an automobile, how much  
5 mileage you get. Well, how many millions of  
6 kilowatt hours do you get out of a ton of  
7 uranium? Well, this came out in NRC hearings.  
8 The NRC expert witness did solemnly swear that  
9 a nuclear plant will generate 32 million  
10 kilowatt hours of electricity for each ton  
11 of uranium without recycling and this repeated  
12 previously sworn testimony, okay. Then the  
13 State Attorney General of Louisiana asked a  
14 mining engineer by the name of Morgan  
15 Huntington to appear on behalf of the State of  
16 Louisiana. And he said, "Now, wait a minute.  
17 You're saying 32? I happen to have here some  
18 Atomic Energy Commission records for this plant  
19 which has been operative for ten years and it  
20 delivered only 8.6. And here's another plant  
21 that delivered only 6. What gives?"

22 Well, the NRC expert witness said --  
23 he actually reputed his own sworn testimony  
24 and he admitted that no nuclear plant does  
25 as well as 32 and Huntington tried to find out

1 exactly what it does. No answer. So he  
2 sent questions to the top officials of ERDA,  
3 questions which would very accurately pin  
4 down exactly what the net yield or a gross  
5 yield would be. It's almost two years now and  
6 his answers have been refused. Meanwhile,  
7 he's learned that a new study of net energy  
8 balances by the Federal Energy Administration  
9 would omit the actual operating records of  
10 nuclear plants. Now, I think that the public  
11 has a right to know how far below certified  
12 standards nuclear plants really fall. There is  
13 no sworn testimony that holds up under  
14 cross-examination and yet nuclear promoters  
15 are boasting that these plants are producing  
16 72 now, not 32, not 8.6, not 6, but 72. But  
17 it's just like using multi-million dollar  
18 subsidies in order to sell automobiles that  
19 deliver only one-twelfth of the mileage they're  
20 supposed to. And as you know, nuclear power  
21 cannot survive without unending multi-billion  
22 dollar subsidies. If it were truly economical,  
23 not a single penny of subsidy will be needed  
24 and yet hundreds of billions of continued  
25 subsidies are being schemed for. Now, we --

1           The Paramous Environmental Council, heartily  
2           endorses 1494 and I think that that should be  
3           an important Bill because it addresses itself  
4           to very serious responsibilities which thus  
5           far have been refused by the nuclear industry.  
6           They have refused to take responsibility for  
7           a bad accident which could kill millions of  
8           people. Why, the utility lobby threatened  
9           to shut down every nuclear plant in the country  
10          unless the Price Anderson Act was extended  
11          and they even added a new provision which gives  
12          them a break in their insurance if a second  
13          accident happened and that's how much confidence  
14          they really have in their conspicuously  
15          untested emergency cooling core system. As  
16          a testing engineer, I know damn well there's  
17          no reason in the world why 20 years ago they  
18          shouldn't have run full scale tests.  
19          They could have put the valves in, the piping,  
20          the holding tanks in the control system. There's  
21          sno reason why they couldn't. They were out  
22          to save a dollar and public be damned. And  
23          now they refuse -- they still refuse to perform  
24          full scale tests of emergency systems. That's  
25

1 another refusal of responsibility. They balk  
2 at issuing evacuation plans and they balk  
3 protecting plants adequately against sabotage.  
4 I think that these responsibilities have  
5 been refused much too long.

6 SENATOR McGAHN: Mr. Goodman, I'm  
7 going to let you continue. I just -- please,  
8 we don't have insurance. If you break your  
9 hand or break the table, we're not covered.

10 MR. GOODMAN: I think that by  
11 definition that attitude which is one where  
12 very serious responsibilities are refused is  
13 by definition an attitude of irresponsibility.  
14 Instead of -- now if they had ethics, they  
15 would have insisted on honoring these  
16 responsibilities which they have refused for  
17 so long. And instead of ethics and responsibility,  
18 I think we've been getting nothing but  
19 lies, about the safety, the economy and the  
20 need to push on with nuclear subsidies and  
21 boondoggled. I'd like to make time for  
22 other speakers. Thank you very much.

23 SENATOR McGAHN: Mr. Goodman, thank  
24 you very much. If you have anything, submit  
25 it. You're a gentlemen in keeping with your

1 time schedule.

2 Mr. Irvin Klineman.

3 MR. KLINEMAN: My presentation is  
4 less than ten minutes and I'll try to shorten  
5 it as I go. My name is Irvin Klineman. I'm  
6 a resident of New Brunswick, New Jersey. I  
7 have lived in New Jersey for fifteen years.  
8 I'm the Vice President of the Federal Pacific  
9 Electric Company of Newark, New Jersey who  
10 I am representing at these hearings.

11 I am not an expert in nuclear power.  
12 I'm here more to talk about the real world  
13 of social economics and the impact of nuclear  
14 power or available electric power and energy  
15 in the United States. I also represent the  
16 National Electrical Manufacturers Association  
17 and I'm a member of that Association's Project  
18 Daybreak Committee. This Association known  
19 as NEMA represents 575 manufacturers of  
20 various products, electrical products who  
21 employ a large portion of the 2.7 million  
22 Americans in the electrical industry. Many  
23 of them are located here in New Jersey. The  
24 Association NEMA was developed primarily  
25 over 50 years ago by the electrical manufacturers

1 to develop standards for performance and  
2 safety of electrical products. The Project  
3 Daybreak Committee is a special task force  
4 committee whose charge is to help this nation  
5 through this critical period of changing  
6 energy sources by developing more efficient  
7 ideas in the use and conservation of energy.  
8 And I mention one example, and outstanding  
9 example is T.E.M. or Total Energy Management  
10 manual developed with the National Electrical  
11 Contractors Association and endorsed by  
12 several government and private groups and used  
13 by thousands of commercial building operators  
14 to help reduce waste of energy and improve  
15 its wise utilization. I only mention this  
16 to indicate that our industry is seriously  
17 interested in conservation and work hard at it.  
18 The Federal Pacific Electric Company in Newark  
19 New Jersey and the National Electric Manufacturers  
20 Company are opposed to the two Bills known  
21 as S1494 and S1721 because they will in effect,  
22 reduce the availability of adequate supplies  
23 of electric power in New Jersey in a period  
24 when the decline and availability of gas and  
25 oil will create an even greater need for

1                   electricity.

2                   Speaking first for NEMA I wish to  
3                   state that we are convinced that our present  
4                   major sources of energy 'oil and gas, are  
5                   rapidly depleting in the United States and  
6                   that those fuels available to us from other  
7                   nations are also depleting and will become  
8                   more costly and less available in the next  
9                   few years and critically so by 1985 or even  
10                  sooner. Furthermore, because of international  
11                  political considerations the countries who  
12                  are major suppliers have the unilateral power  
13                  to cut off our resources or increase prices  
14                  far above any normal inflationary trends.

15                  It therefore behooves us in the  
16                  interest of national security, which wasn't  
17                  touched upon here, and the economic health of  
18                  our State and country to quickly and with a  
19                  sense of urgency develop all alternative  
20                  sources of power available to us.

21                  There are certain requirements for  
22                  oil and gas today which can only utilize  
23                  those fuels such as land and air transportation,  
24                  petro chemicals, fertilizers and also to  
25                  continue to supply the millions of oil or gas

1 space and process heating systems now in  
2 place in homes and industry which have cost  
3 citizens and businesses uncounted billions  
4 and which become worthless junk without any  
5 fuel to supply them, as we recently learned.

6 There are many other tasks which can  
7 and will need to be switched to electrical  
8 energy generated by coal and nuclear fuel  
9 and any other source of energy that can be  
10 developed in any practical period of time.

11 For this nation to stop or retard  
12 or even to act in less than urgent speed to  
13 develop these resources spells calamity in  
14 the not-too-distant future.

15 Our economic health until now and  
16 our national security was based upon large  
17 supplies of available energy in many forms.  
18 Nations have lost wars because they ran out  
19 of energy resources. Others that do not have  
20 them have yet to emerge into modern society.

21 In other major nations of the world  
22 there still exists large reserves of oil, coal  
23 and gas which are available to them only and  
24 furthermore, they are without restraint  
25 developing nuclear electric power.

1           If we, whose oil and gas reserves  
2       are depleting and whose present total resources  
3       are largely dependent upon the posture of  
4       non-aligned foreign lands do not quickly  
5       develop all reasonable energy sources available,  
6       we shall become an impoverished and weakened  
7       and insecure country.

8           Economic weakness is a general  
9       descriptive term. Bear no illusions to its  
10      precise meaning here. It means poverty for  
11      millions, not an unemployment compensation  
12      life style with jobs on and off, and not  
13      welfare and not food stamps. It mean abject  
14      poverty with even the best-intentioned government  
15      unable to offer much assistance to its citizens.

16           Is this fear and exaggeration? If  
17      those who think so fairly think through our  
18      dependence on electrical energy for jobs, for  
19      food, for products, for pure water and also  
20      consider dependence on gas for fertilizers  
21      and our dependence on oil for the movement of  
22      food and goods and people, they will not think  
23      these statements are exaggerated.

24           Now, as a representative of the Federal  
25      Pacific Electric Company of Newark, New Jersey,

1 I wish to add the following comments:

2                   In Newark, our company employes  
3 between 800 to 1000 persons. Presently there  
4 are 900 on the roll. We manufacture electrical  
5 distribution equipment and controls and  
6 operate a number of other plants in other  
7 states in the union.

8                   During the recent gas emergency several  
9 of our plants had their gas service interrupted  
10 for varying periods of times as long as  
11 four weeks. The specific plant for which I  
12 am responsible is in South Carolina. Within  
13 24 hours of our gas service being interrupted  
14 we had switched the plant to space heating  
15 to electricity and some 250 employees who  
16 would have otherwise suffered a 30-day layoff  
17 never lost a day's pay. And I've attached  
18 a new article describing what happened.

19                   What if electricity had not been  
20 available? Now multiply our South Carolina  
21 employees by millions of other factory workers  
22 losing ever-lengthening weeks of work, then  
23 the calamity I speak of does not seem so far-  
24 fetched.

25                   In other states of the union, they

1           are cognizant of the pressing need to provide  
2           quickly alternate energy sources. Nuclear  
3           power plants not dependent on oil or gas or  
4           coal are being planned and built with little  
5           disruption. These states will have ample and  
6           comparatively low cost energy. If the State of  
7           New Jersey does not have it, then our industries  
8           to survive will go where the energy is. So  
9           this State, which is industrialized and whose  
10          citizens largely depend on energy intensive  
11          industry for their livelihoods, to enact  
12          legislation to stop and inhibit the development  
13          of electric power is unthinkable. Already  
14          suffering among the highest unemployment rates  
15          in the land for other various reasons, among  
16          which are excessive regulations, the results  
17          of the proposed nuclear legislation if enacted  
18          is tantamount to a mortal blow.

19           In this statement I've not mentioned  
20          the fears of those who press for anti-nuclear  
21          legislation and I heard many of them today.  
22          I've read about as much, perhaps more than  
23          the average layman on the nuclear safety  
24          debate. As a result I know we have about  
25          65 nuclear power plants in operation, some

1 for many years. And some of these plants  
2 were built after long deliberation and cries  
3 of doom by many, many persons who testified.  
4 These plants are operating safely. Multiple  
5 safeguards have prevented accidents and the  
6 technology of safety has greatly advanced.  
7 The certainty of chaos without substantial  
8 nuclear power to supplement other resources  
9 is hardly questionable. The record of nuclear  
10 power makes the claims of those who wish to  
11 stop its growth extremely questionable. Those  
12 who wish to stop nuclear power, what is their  
13 responsibility for the calamitous results of  
14 their efforts if they succeed. What kind of  
15 insurance policies do they offer to people who  
16 lose jobs and whose lives are disrupted and have  
17 to move to other States in the union, or what  
18 kind of insurance is there against that? It may  
19 not be lives, but it certainly is a disruption  
20 of lives. Will they be known if this goes into  
21 effect? Will they be charged? Will they accept  
22 the blame or will they thrust it upon the  
23 electric companies for not having planned ahead,  
24 as I heard the Senator say today in ignorance  
25 of the situation? How do those persons and their

1 backgrounds and supporting documentations  
2 stack up against the findings of thousands  
3 of engineers and scientists varying from nuclear  
4 physicists to marine biologists who support  
5 nuclear power? Those people are human beings  
6 and if their lives are in danger I think they  
7 know it. Our choice is against S1494 and  
8 S1721. We urge that these bills never become  
9 legislation for the good of New Jersey and  
10 the people. Thank you.

11 SENATOR McGAHN: Thank you very much.  
12 Could I ask at this time how many people present  
13 wish to testify? Is there any that would  
14 wish to present simply written testimony in  
15 lieu of that? If there's only six, if you  
16 can restrict your testimony to eight minutes,  
17 we'll be happy to take it.

18 Our stenographic team here was  
19 contracted to seven o'clock; I think we can  
20 prevail upon them to stay until we get  
21 finished. All right, fine.

22 Is Mr. Aroniss present?

23 MR. ARONISS: I just want to read  
24 this statement, which won't take very long.  
25 I'm Herbert Aroniss, President of the New Jersey

1                   Council of Electrical Leagues, an organization  
2                   of approximately 1500 members from all segments  
3                   of the electrical industry in the great state  
4                   of New Jersey. Our members are manufacturers,  
5                   manufacturers representatives, distributors,  
6                   electrical contractors, electrical inspectors,  
7                   and so forth.

8                   We're upset about Bills 1494 and 1721,  
9                   which for all intents and purposes will stop  
10                  the construction of all electric generating  
11                  plants. Household fuel burning plants are  
12                  no longer feasible to build due to the  
13                  sulphur restrictions imposed on coal-burning  
14                  plants, the scarcity of natural gas and the  
15                  deficit balance of payments created by oil  
16                  plants.

17                  Without the construction of nuclear  
18                  plants, where will New Jersey get the power  
19                  to meet the demands of a growing State? Or  
20                  without the capacity to increase electric  
21                  power production, how will New Jersey keep on  
22                  expanding industry and attract new companies?  
23                  One of the most important factors an industrial  
24                  corporation considers in evaluation of the  
25                  feasibility of a plant site is available electric

1 power. Without sufficient power to meet  
2 industry's thirst for power, industry will  
3 move to other states where this thirst can  
4 be adequately satisfied. When industry leaves,  
5 workers leave. When workers leave, New  
6 Jersey loses its shoppers. When the shoppers  
7 leave, the great shopping malls which grace  
8 our State are doomed. When New Jersey reaches  
9 this state of stagnation, who will pay the  
10 taxes necessary to keep this great State  
11 viable? Without a proper supply of power,  
12 New Jersey will suffer an excruciating  
13 reduction in industry and commercial business.  
14 Unemployment will be rampant. Where will the  
15 money come from to run the great State?  
16 Without sufficient electrical capacity to  
17 accommodate an expanding industry New Jersey  
18 or any State in the union is destined to dismal  
19 failure and poverty.

20 In conclusion, we, the New Jersey  
21 Council of Electrical Leagues emplore the  
22 legislature to do all in its power to not  
23 only defeat Bill S1494 and S1721, but to  
24 rig Bills which will assist the electric  
25 utilities in their endeavor to manufacture

1 more electricity. This is the age of electric  
2 power. Progress is synonymous with the  
3 capacity to generate electric power.

4 Sufficient electrical power is a must for  
5 progress. A State that does not progress  
6 stagnates. Let's never create a law which  
7 will stagnate our great State of New Jersey.

8 Thank you.

9 SENATOR McGAHN: Thank you very much.

10 Mr. Leif Johnson, is he present or did he leave?  
11 Mrs. Joan Welsh?

12 MRS. WELSH: I represent the Greater  
13 Philadelphia Chamber of Commerce and the  
14 PenJerDel Corporation which is a regional  
15 affiliate association of business, industry,  
16 and the professions in the tri-state area with  
17 five counties in New Jersey and one in Delaware,  
18 New Castle County, Delaware, and five in  
19 Pennsylvania, some 2300 firms as members. We  
20 admit matters of taxation, education, legis-  
21 lation are affecting regional economy to be  
22 parochial when we testify before groups such  
23 as yours. But we come here in a thoroughly  
24 non-parochial view when we cover environmental  
25 matters and when we deal with major matters of

1           energy such as covered here today. The Bills  
2           which you are proposing we consider far  
3           reaching, well beyond our local State boundaries  
4           and in its broader context, the future of the  
5           mid-Atlantic region as a whole and the  
6           Pennsylvania Jersey Maryland interconnection  
7           which serves the four States and the District  
8           of Columbia, that we come today. Our corporation,  
9           it's advisory committee and Board of Directors  
10          believe that the Bills are ill-advised. We  
11          do recognize the sincerity of all the fears  
12          and objections raised and we don't recommend  
13          that any of these doubts be treated with  
14          anything less than total respect. There's  
15          just no question about that. We followed  
16          from a distance as has been discussed the  
17          seven States and the measures that were put  
18          before public debate in those States. In each  
19          State when the public reviewed it, the answer  
20          was in the negative. If such a debate  
21          in New Jersey were truly a public inquiry,  
22          fine, an out and out exercise in adversary  
23          argument and we see no point to, we note with  
24          interest the pros and cons if one listens to  
25          those scientists for and against nuclear power.

1           Generally the division breaks, this is not  
2           always the case but if you take lists as  
3           we've done and looked down and known those  
4           people who you spoke with, biologists and  
5           some chemists appear to be against nuclear  
6           energy. Just as another chemist generally  
7           appears to be pro-nuclear. We certainly come  
8           face to face with the possibility of core  
9           meltdown and sabotage, malfunctions and earth-  
10          quakes, storms and so forth. But it is our  
11          real belief that 1000 percent assurances in  
12          anything we cannot have. And clearly the  
13          careful planning to minimize all likely and  
14          unlikely risks is terribly warranted. We  
15          think the Nuclear Regulator Commission is  
16          performing these functions with confidence  
17          and with expertise. We don't anticipate there  
18          will be a slackening of either the public  
19          effort or the private sector in these areas  
20          to reduce the risks to a bare minimum. We're  
21          convinced that the a safe disposal of waste  
22          is a problem that can be solved concurrently  
23          with the continued generation of electrical  
24          power and nuclear plants. The question was  
25          raised by one of the testimony -- those

1 testifying that it is not done anywhere.  
2 In fact, it was Germany in the Federal  
3 Republic of Germany they are currently storing  
4 nuclear waste in the salt deposits. Most  
5 important we see nuclear power as an essential  
6 buyer of time between now and the point when  
7 we will have our energy house in order. We  
8 do recognize the need for conservation and  
9 the contribution it can make. We look for  
10 important substitutes for imported oil. We  
11 look to the Alaskan pipeline perhaps to supply  
12 some of this. We look to more exotic sources  
13 of energy but none of these, solar, geothermal,  
14 any that were mentioned, can supply significant  
15 energy in the next three decades. Nothing  
16 to the -- a significant base to our economy.  
17 One of the previous testifiers spoke to solar  
18 energy as supplying jobs and healing the economy  
19 but nowhere in this region can solar energy  
20 do more than space heat and hot water heat  
21 or possibly cool, but it cannot -- there's no  
22 way it can provide industrial generation in  
23 this time. We face the dilemma that we all  
24 face and as a region, as a nation we want to  
25 make fuel sources and substitutions for valid

1 reasons. But we don't see, and this is the  
2 main point, these substitutes at hand in the  
3 next five or ten years and we don't even see  
4 them at hand in the next twenty years. And  
5 we feel that we must rely on nuclear generation  
6 and on oil and coal fired as needed to produce  
7 the electricity essentially if we're going to  
8 have domestic employment and national fiscal  
9 solvency and this is a very important factor.  
10 Nuclear power has, as has been indicated, we  
11 feel generated -- demonstrated its safety.  
12 The figures are still and projected into the  
13 80s and 90s in the economic favor of nuclear  
14 power. It's 23 percent cheaper than coal,  
15 60 percent cheaper than oil. We point to the  
16 10 percent savings of the national output of  
17 energy as significant to one million barrels  
18 a day, which is the magnitude which former  
19 President Ford suggested we save through  
20 conservation. We also would like to point  
21 to the recent severe winter and energy gas  
22 shortage problems which we faced. In many  
23 instances it was nuclear power which was able  
24 to save communities from complete shutdown  
25 and even with that, we were in trouble.

1                   I think I've capsuled my -- you have  
2                   my written remarks.

3                   SENATOR McGAHN: Thank you very much.  
4  
5                   Mr. John Langenfeld; not present. Mrs.  
6                   Eleanor Wynmill? Mrs. Betty Greenberg.

7                   MRS. GREENBERG: My name is Betty  
8                   Greenberg. The very fact that this hearing  
9                   is being held I take as an act of good faith.  
10                  I appreciate the opportunity to be here. I  
11                  appreciate the opportunity to speak on behalf  
12                  of New Jersey citizens for clean air. I have  
13                  some very positive assumptions about each of  
14                  you on the panel. I assume that you care about  
15                  the State, about the people who live here  
16                  and breathe here. I assume you are deeply  
17                  concerned, not only about our energy needs,  
18                  but also about unemployment, pollution and  
19                  needless waste of precious resources. I also  
20                  credit each of you as being an intelligent  
21                  person, genuinely interested in finding the  
22                  best ways to meet New Jersey's energy needs.

23                  I'd like to comment briefly on  
24                  Senate Bill 1407 and its companion Bill 1721.  
25                  Number 1721 looks good but since it is tied  
                      to 1407, it's value apparently hinges on the

1 acceptability of 1407. Although this Bill,  
2 1407, addresses real problems, it has serious  
3 shortcomings. It's major shortcomings are  
4 lack of emphasis on conservation and too much  
5 emphasis on large energy facilities. If the  
6 Bill included plants for cogeneration, I would  
7 know you were serious about conservation.  
8 If the Bill included a goal of a utility on  
9 every or almost every rooftop, I would know  
10 you were serious about conservation. By  
11 utilities on rooftops, I mean solar collectors  
12 or windmills or both. In a crummy  
13 neighborhood on the lower east side, there is  
14 an old brownstone type building that is now  
15 getting a lot of its energy from the wind  
16 and the sun. With a city-backed mortgage  
17 people in the neighborhood put in their time  
18 and labor to convert this building into an  
19 energy efficient building with apartments  
20 for themselves. The solar collector on the  
21 roof supplies 85 percent of their hot water  
22 and 15 percent of their heat. Heating costs  
23 are lowered by storm windows and excellent  
24 insulation. A windmill supplies a significant  
25 proportion of their electric power. They are

1 hooked into Con-ed. When they generate more  
2 electricity than they need, it goes into the  
3 system and Con-ed pays them, not as much though  
4 as they have to pay Con-ed. I mentioned this  
5 building at 519 east 11th Street because it  
6 is not an ideal location and yet these young  
7 people pulled it off. Why not thousands of  
8 buildings in New Jersey? Going this way could  
9 increase the number of jobs. Among the things  
10 needed would be storm windows, weather stripping,  
11 insulation, solar collectors, heat storage  
12 facilities, windmills. These items need  
13 people to make them, to install them and to  
14 service them. To get back to the Bills under  
15 consideration, Senate Bill 1494 is a good  
16 one. I only wish that it imposed a moratorium  
17 on all nuclear plants unless the walls were  
18 already built. My testimony is meant to support  
19 Bill 1494.

20 How safe is nuclear energy? One could  
21 make a prima-facie case that nuclear power  
22 plants are unsafe at any price if they need  
23 a Price Anderson Act. If they are as safe as  
24 claimed, there should be no objection to buying

1 insurance like any other business. Such as  
2 5A of Senate Bill 1494 is most welcome because  
3 it would put the responsibility for obtaining  
4 insurance where it belongs. I would like to  
5 bring up some specifics about the dangers  
6 of nuclear energy. The combined atmospheric  
7 weapons testing of the U.S., the United  
8 Kingdom and the USSR in all time amounted to  
9 250 megatons of nuclear fission. This led  
10 to radiation doses that provoked international  
11 concern. A 1000 megawatt nuclear powered  
12 station will necessarily generate per year  
13 the long-lived radioactive fission product  
14 equivalent to those generated by 23 magatons  
15 of fission bombs. Multiply this by the  
16 projection of 500 such plants by the year 2000,  
17 keep in mind that there is no evidence for  
18 any safe threshold of radiation exposure.  
19 Radiation exposure means increased incidents  
20 of cancer and the prospect of genetic deteriora-  
21 tion. Even if the dispersal of long-lived  
22 fission products can be kept down to one-one-  
23 hundredth of one percent, it would be the  
24 equivalent of dispersing 50 megatons annually  
25 and would lead to high radiation doses. Even

1 if fission product garbage would be isolated  
2 successfully for centuries it won't be good  
3 enough. Let's consider plutonium 239.

4 Plutonium 239 is the most poisonous substance  
5 handled in quantity by man. To give an idea  
6 of its toxicity, if one pound of plutonium  
7 239 dispersed as fine, insoluble particles  
8 has the potential for causing 9 billion human  
9 lung cancer doses; with a half life of over  
10 twenty thousand years even one-one-thousandenth  
11 of one percent of plutonium 239 entering  
12 the air would be unacceptable danger.

13 SENATOR McGAHN: Mrs. Greenberg, you  
14 have two minutes to wrap it up, please.

15 MRS. GREENBERG: The problem is not  
16 merely technical, although that is difficult  
17 enough. According to an engineering report  
18 prepared in 1976 for the New Jersey Department  
19 of the Public Advocate, if an energy con-  
20 servation program were implemented in New  
21 Jersey no new central plants would need to  
22 be constructed to meet either peak loads  
23 or yearly consumption between now and 1990.  
24 One way of saving energy is by designing  
25 new buildings and by altering existing buildings

1 to be energy efficient. The American Institute  
2 of Architects did a careful study which projects  
3 energy savings of up to 80 percent if new  
4 buildings are built right in the first place.  
5 In existing buildings fuel consumption could  
6 be cut as much as 50 percent. By 1990 this  
7 could mean a saving of the equivalent of  
8 12 and a half million barrels of oil a day.  
9 12 and a half million barrels of oil a day  
10 is roughly equivalent to any one of the four  
11 major domestic sources of energy projected for  
12 1990. These sources are coal, nuclear, oil,  
13 and natural gas. 12 and a half million barrels  
14 a day saved would cut projected reliance on  
15 foreign oil by two-thirds. Anyone who is  
16 seriously interested in reducing dependence  
17 on foreign oil should keep this in mind.  
18 There are other benefits to be derived from  
19 conserving energy in the built environment.  
20 Reductions in the use of fossil fuels for  
21 energy would cut down on pollution hazards.  
22 Making existing and new buildings energy  
23 efficient will cost money but it will come  
24 back in increased amounts by the money saved  
25 on energy. An especially important benefit

1 for New Jersey is that the making of our  
2 energy -- of our buildings energy efficient  
3 would provide an estimated two to three  
4 million job opportunities annually in con-  
5 struction and related industries.

6 SENATOR McGAHN: Mrs. Greenberg,  
7 thank you. I hate to disrupt you, but if you  
8 would submit that it would be a matter of  
9 the public record. Thank you.

10 Mr. F.J. Patti? I think before we  
11 start, we are going to rather strict with the  
12 ten minute limitation because we have no  
13 other choice.

14 MR. PATTI: Okay; I don't believe I'll  
15 have a problem with that. I have a short  
16 prepared statement which I've added some  
17 notes during the afternoon.

18 I'm Francis J. Patti, Chief Nuclear  
19 Engineer of Burns and Roe, Incorporated, a  
20 large architect engineering firm with head-  
21 quarters offices in Oredell, New Jersey.

22 We design and build all types of electrical  
23 generating plants throughout the world.

24 Burns and Roe Incorporated has completed  
25 or is currently designing and or building over

1           75 fossil fuel generating plants and 9 nuclear  
2       plants. These plants include Oyster Creek  
3       and Forked River. In addition to these con-  
4       ventional plants, Burns and Roe is engaged in  
5       projects involving advanced technology such  
6       as MHD, fluidized bed combustion, coal gasifi-  
7       cation and solar and wind energy.

8           Now, the Bills which this Committee

9       and the legislature are considering would

10      prevent further development of nuclear power

11      in New Jersey for a long time to come. The

12      adverse consequences of their passage must

13      be considered carefully. Three realistic -- and

14      I underline the word realistic -- alternatives

15      exist if nuclear power is phased out. The

16      first is to use oil as a fuel for new

17      generating facilities. Clearly this is un-

18      acceptable since it will increase our

19      dependence on imported oil. The second is

20      to use coal as a fuel instead of oil. There

21      are practical difficulties in expanding the

22      coal supply, given adequate time these undoubtedly

23      can be resolved. However, that still leaves the

24      significant adverse environmental impact of

25      coal. And in the news in the last couple of

1 weeks there have been a number of items  
2 about TVA being in serious violation of  
3 EPA guidelines on SO-2 emissions.

4 Now, this utility is a federal agency  
5 and does not have a profit motive, the  
6 way an investor-owned utility would have  
7 but it still resists implementation because  
8 of the cost which would have to be passed  
9 on to the consumer. Now, earlier today  
10 somebody mentioned that Public Service is  
11 calling upon electricity from a Pennsylvania  
12 mine mouth plant. Well, suppose the EPA  
13 starts enforcing guidelines in Pennsylvania;  
14 one way for Pennsylvania to get out from  
15 under would be to say, okay, we'll let  
16 New Jersey build the coal-fired plants  
17 in their own territory. It's just a  
18 hypothetical situation and perhaps over-  
19 exaggerated, but it's the point I'm getting  
20 at.

21 Now, if coal is found to be environ-  
22 mentally unacceptable, we are left with  
23 the third alternative which is nuclear  
24 Now, if the latter occurs and is found  
25 unacceptable, recovery will be extremely

1           painful. Now, your Bill deals primarily  
2           with New Jersey, but let's visualize this  
3           on a broader scale where other states might  
4           enact similar Bills and bring nuclear  
5           power development to a halt on a large  
6           scale. There are people who are experienced  
7           in the design of nuclear power plants.  
8           There are schools which are turning out  
9           nuclear engineers. These people would  
10          seek to use their skills in the other  
11          industries. The nuclear engineering  
12          department in the colleges would be  
13          adversely affected. So when you're looking  
14          at recovery, you have to consider the  
15          time it takes to build an experienced  
16          staff. Now, I've been in the power  
17          business since I was a student engineer  
18          at TVA 30 years ago and I've been in the  
19          nuclear end of the business for the last  
20          20 years. And the level of skills among  
21          the people working for me, nuclear  
22          engineers, is much higher than the level  
23          of skills that existed at that time.  
24          So -- and that has come with experience.  
25          Now, if you're looking at safety and

1 reliability, those people who work as  
2 designers on nuclear projects, those people  
3 who are on the construction -- our field  
4 engineers, they have developed that experience  
5 and if nuclear power construction comes to  
6 a halt, they will no longer be available.  
7 They'll go elsewhere. Thus, recovery will  
8 take a longer time than just the time it  
9 takes to build a couple of plants. It would  
10 take, I would estimate, on the order of  
11 ten to twenty years. Now, while all of us  
12 would feel the pinch, the biggest burden  
13 would fall on the factory worker whose job  
14 depends on an adequate energy supply and  
15 thus disadvantaged persons who are seeking  
16 to improve their lot. Now, by comparison,  
17 last winter's natural gas shortage would  
18 be insignificant. Nuclear power has a history  
19 of safe, reliable regeneration with minimum  
20 environmental effects. Earlier today, somebody--  
21 I believe you did -- commented on the growth  
22 of the population in the vicinity of the  
23 Oyster Creek plant. Now, if people were  
24 really that concerned about a nuclear plant  
25 being in their area, those people would not

1 have bought property in that area and built  
2 there and moved in.

3 Now, in view of the good record and  
4 on the other hand of the considerable con-  
5 sequences of inadequate energy supply, I  
6 recommend against passage of S1494 and S1721.

7 Now, I have a brief comment on S1407.

8 In New York State there is a similar Bill  
9 which I believe was passed about four years  
10 ago. Since that time there have been eight  
11 applications, if my numbers are correct.

12 I may be off one or two. But in that time  
13 that that Bill has been in effect, no  
14 applications have been approved. And this  
15 is the problem to which others have  
16 alluded earlier, and that would be the  
17 problem with an act unless some kind of a  
18 time limit is set on the review to set an  
19 end date. Otherwise it will tend to drag on.

20 MR. MATTEK: Did that Bill exempt  
21 facilities that were already under construction?

22 MR. PATTI: Yes; yes, because Indian  
23 Point Three was well into construction at  
24 that time. Now, there was an earlier Act  
25 in Washington State which has been revised

1 since then and I went through that Washington  
2 State Act, the original version, set a time  
3 limit. And I don't recall what it was, but  
4 that Act -- the plant we were licensing went  
5 through in a straight forward fashion.

6 SENATOR McGAHN: Thank you very much,  
7  
8 Mr. Patti. Mr. Canter.

9 MR. CANTER: I am Howard R. Canter,  
10 Director of Project Operations Division of  
11 Burns and Roe, Inc., architect engineering  
12 firm located in Oradell, New Jersey. We  
13 design and construct all types of electric  
14 generating plants throughout the world in-  
15 cluding fossil fuel generating plants as  
16 well as nuclear. Mr. Patti explained how  
17 we also participate in projects with the  
18 more advanced technologies such as solar  
19 and MHD and some of the others. So we do  
20 have knowledge of some of the alternatives.  
21 I have spent the last 23 years of my life  
22 involved with operations, design and con-  
23 struction of fossil fuel and nuclear power  
24 plants for both shipboard and land-based  
25 applications. Half of this time has been  
involved in nuclear. Before I go into the

1 rest of the -- I have a very brief statement.  
2  
3 I'd like to address a couple of points that  
4 were brought out by other people in the  
5 testimony. I had not come prepared to address  
6 Bill S1407. However, after listening to  
7 some of the comments on it, I read the Bill,  
8 it appears to me that you've got an issue of  
9 State's rights. I think States do have rights,  
10 but New Jersey had better not make a decision,  
11 feeling very strong about State's rights and  
12 then scream to other states about power that  
13 they don't have. Mr. Patti just mentioned  
14 the fact that if the State of Pennsylvania  
15 decides to close down the mine mouth coal  
16 plants that are in Pennsylvania, it's going  
17 to affect New Jersey. Power generation and  
18 distribution is too big an issue for any one  
19 given state. One of the projects I presently  
20 have responsibilities for is in the State  
21 of Washington and in the northwest; they have  
22 a regional power planning council. And all  
23 the planning is done on a regional basis.  
24 So I caution the senate to be very careful  
25 of taking a parochial view that is so

1 narrow that you can decide I won't have this  
2 or I won't have that and then five years  
3 later you're going to cry for help from  
4 somebody else who could care less.

5 With regard to the question about  
6 nuclear power not being cheaper, if nuclear  
7 power is not cheaper, I would like to know  
8 why the public service commission in the  
9 State of New York is demanding that Con-ed  
10 refund 23 million dollars that they charged  
11 their customers last year during a period  
12 of time when they could have been operating  
13 Indian Point Three and Two and did not.

14 With regard to the comment that  
15 somebody made about over-pressurization,  
16 I'd like to make a comment that any fluid  
17 system has fluctuations in the pressure and  
18 devices are designed to control the pressure  
19 or relieve the excess pressure. Your auto-  
20 mobile has a safety relief valve in the  
21 radiator cap and when the pressure goes up  
22 it relieves some of it and it may dump on  
23 your garage floor. Shall we shut down all  
24 automobiles everytime that happens?

With the regard to the comments on  
the alternate sources, none of the alternate  
sources such as solar or wind can make a  
significant dent in the needs. The Bills  
which this Committee is presently considering  
were not just to prevent further development  
of nuclear power in the State of New Jersey  
for the four-year period specified in the  
Bills but also could do irreparable harm  
to the power generation facilities in the  
State of New Jersey for decades to come.

Now matter whose figures are used on a  
potential load growth and considering  
conservation as a necessary and essential  
ingredient to our energy policy, additional  
generating capacity will have to be provided  
in the State of New Jersey in the near  
future. The 1973 gasoline shortage and  
last winter's shortage of natural gas were  
providential warnings which clearly indicate  
the serious consequences that could result  
in relying upon natural gas or oil for  
future power requirements. The alternative  
of using coal for new generation facilities

is complicated by the difficulties in  
expanding the production and distribution of  
coal as well as the difficulties in meeting  
the environmental requirements in burning the  
coal that is available. A recent study  
performed for the federal government by the  
Ford Foundation, much publicized last week  
by the way, indicates that hazards to human  
life from burning coal for power generation  
is two and a half times the hazard to human  
life of generating power with nuclear power  
plants, . . . . . in the most pessimistic  
cases. Thus if these bills are passed I  
think the development of nuclear power,  
petroleum and natural gas are not available  
and coal by itself is not an acceptable  
alternative, the State of New Jersey faces  
an extended period of not just zero economic  
growth, but actual economic decline.

I am familiar with other areas in  
the country where there are abundant hydro-  
electric power resources that are presently  
being augmented by nuclear power. And they  
offer industry relatively cheap and abundant  
power well into the future. New Jersey

1 cannot compete in the free market with  
2 these areas such as the northwest and the  
3 sunbelt. And we will see the migration of  
4 our industry exellerate, leaving this State  
5 a virtual economic wasteland. Those of us  
6 involved with the design and construction  
7 of nuclear power plants are fully aware of  
8 the safety questions involved and consider  
9 our responsibility to protect the public  
10 very seriously. We have not and do not cut  
11 corners or take shortcuts that could  
12 jeopardize the safety of the public. The  
13 owners of these power plants have not  
14 shirked their responsibilities to implement  
15 many safety requirements that have evolved  
16 through the years regardless of the fact  
17 that in some cases these requirements have  
18 significantly increased the cost of these  
19 power plants. I have a chart that shows  
20 just the impact of some requirements on  
21 one project and I won't discuss it.

22 To further illustrate the fact that  
23 the owners and designers of nuclear power  
24 plants are not fabricating their responsibili-  
25 ties, a recent study indicated that the

increased costs due to regulatory and safety features since 1969 for nuclear power plants is over two times as great as the increased costs due to inflation. This kind of investment is a good example of the seriousness and commitment to safety made by the utilities and the engineers of these power plants and has resulted in plants that are designed to be safe, efficient, reliable and still produce electric power at a cost very competitive with present-day fossil fuel generating facilities. The design and construction of a nuclear power plant takes about ten and a half years and requires considerable capital investment even in the early years by the electric utilities. Due to the uncertainty or whether or not the additional facilities would ever be built, the proposed four-year moratorium would result in stopping early design and procurement. Even if the development of nuclear power were permitted after the four year period, it would then take a significant amount of time to reassemble the disbanded skilled teams of engineers

1           designers and workmen needed to design and  
2           to build these plants. Thus the loss could  
3           be considerably greater than just four years  
4           and will result in the State of New Jersey  
5           trying to play catch-up in the economic game  
6           called energy supply. A wrong decision made  
7           now by the State Senate could take several  
8           decades to overcome.

9           SENATOR McGAHN: Thank you very much,  
10          Mr. Canter.

11          MR. MATTEK: Mr. Warren Thompson.

12          MR. THOMPSON: Thank you. I'm here  
13          on behalf of Mr. Paul Kilitzer who is Director  
14          of Public Affairs for the American Society  
15          for Environmental Education. Our agency  
16          headquarters are in Union, New Jersey. The  
17          testimony he submits is quite voluminous and  
18          I've prepared five copies for each of your  
19          Committee members and one for the record.  
20          You will notice that he attacks the Bills  
21          S1721 and 1494 and speaks out against passage  
22          of such Bills. Thank you very much.

23          SENATOR McGAHN: Thank you, sir.

24          MR. MATTEK: Si Goldman, he's on  
25          the list, I believe.

1                   MR. GOLDMAN: Yes; am I last?

2                   SENATOR McGAHN: Is there anybody  
3                   else that intends to testify?

4                   MR. STEIGELMANN: My Name is William  
5                   Steigelmann, a resident of Cherry Hill. I'm  
6                   a professional engineer who has been engaged  
7                   in a wide variety of energy programs during  
8                   the last twenty years. My work has covered  
9                   energy conservation, environmental and  
10                  economic studies and investigations of coal,  
11                  oil, natural gas, nuclear, solar and geothermal  
12                  conservation technologies. I'm currently  
13                  on the faculty of Drexel University in  
14                  Philadelphia, where I am doing studies  
15                  relating to energy conservation in industry.  
16                  I'm also Chairman of the Energy Committee  
17                  of the South Jersey Chamber of Commerce,  
18                  a member of the Energy Committee of the  
19                  Greater Philadelphia Chamber Penn Jer Del.  
20                  It is from this background that I would  
21                  like to discuss Senate Bills 1494 and 1721,  
22                  both dealing with nuclear power plants.  
23                  I want to make clear that my personal stake  
24                  in nuclear power is in no way different from

1           those of either the average citizen of  
2           New Jersey or of the senators who have  
3           sponsored these Bills. I'm not employed  
4           in the nuclear industry, nor do I have any  
5           prospects of being so employed. My interest  
6           in these Bills is from the point of view  
7           of one who has carefully considered the  
8           issues and who would be affected by the  
9           consequences that would likely follow if  
10          either of these Bills were passed. To be  
11          brief and to the point, these Bills are  
12          totally unnecessary and will invoke severe  
13          economic repercussions within our State.  
14          They will not -- I repeat, will not --  
15          increase the health and safety of the public,  
16          but will probably produce the opposite effect.

17           The following are a few points to  
18          amplify the summary statements. Number one,  
19          New Jersey has now one of the highest  
20          unemployment rates in the nation. Also the  
21          cost of energy in our State is one of the  
22          highest in the nation. Honorable Senators,  
23          there's most definitely a correlation between  
24          these two facts. New Jersey has no  
25          indigenous energy sources other than the sun

1 and the wind. Technology to convert these  
2 sources to electricity on a large scale is  
3 not now commercially available and will not  
4 be for an absolute minimum of fifteen years  
5 and a more likely term of twenty-five years,  
6 if ever. Because we have no indigenous  
7 mineral energy sources and because we have  
8 relatively stringent environmental regulations,  
9 our industrial base is formed mostly by  
10 types of plants which use relatively large  
11 amounts of electricity. Reduction in natural  
12 gas availability is another factor leading  
13 to greater electrification. Our only hope to  
14 stop the rate at which companies are leaving  
15 our State and reduce unemployment is to  
16 provide an assured source of electricity  
17 at as low a cost as is possible. Nuclear  
18 power is needed, desparately needed to fill  
19 this need, since the cost of electricity  
20 from nuclear fuel plants is much more  
21 economical than any of the alternatives,  
22 as has been shown in numerous studies. The  
23 economic damage that would result should  
24 these Bills be passed is frightening to  
25

1  
2 contemplate.  
3

3  
4 Point two, energy conservation is  
5 needed and we will have it; time is required,  
6 however, to achieve mutual results. Even  
7 with conservation our needs for electricity  
8 will increase, although at a lower rate than  
9 it did in the years prior to 1973. Energy  
10 conservation, per se, is not our primary  
11 objective, however, but rather to get our  
12 energy supplies away from natural gas and oil  
13 to the maximum extent possible. Our survival  
14 as a nation depends on this. The only  
15 domestic energy sources that we can tap  
16 quickly to produce electricity are coal and  
17 uranium. Heat pumps are the most efficient  
18 way to heat buildings that are now available.  
19 Engineers feel that this is the best way to  
20 tie in solar heat, for our homes, offices,  
21 etc.

22  
23 Electric furnaces are the least  
24 polluting type. Use of both these types of  
25 equipment is increasing because of the growing  
natural gas shortage. Mass transit systems  
use electricity; electric automobiles when  
they are further developed and widely

1 available are the most efficient and least  
2 polluting method of personal transportation.  
3

4 Point three, the nuclear power industry  
5 is more heavily regulated than any other  
6 in the nation with regard to the health and  
7 safety of the public. As long as electricity  
8 must be generated to meet our needs, nuclear  
9 power plants can do the job with the least  
10 impact on the environment. I would like to  
11 call attention to a report prepared last  
12 year by the Committee on Mines and Energy  
13 Management of the Pennsylvania House of  
14 Representatives. This report entitled Nuclear  
15 Power is based on a series of hearings held  
16 by the Committee and presents a clear  
17 exposition of the pros and cons of nuclear  
18 power plants. The first paragraph of the  
19 conclusion of this report states in three  
20 sentences, "After serious consideration it is  
21 our decision that nuclear power is a safe,  
22 clean and reliable source of power and should  
23 be used to meet the State's and the nation's  
24 immediate needs for electricity. This decision  
25 has been made after carefully weighing the

1           questions and criticisms pertaining to  
2           nuclear power. It is our opinion that the  
3           benefits received from this power source  
4           outweigh the possible risks."

5           I'm pleased to present a copy of this  
6           report to the Committee. In summary, I urge  
7           that the sponsors of these two Bills withdraw  
8           them and spend their valuable time on matters  
9           that would be of greater benefit to the  
10          citizens of our State. Thank you very much  
11          for your time.

12           SENATOR McGAHN: Thank you very much,  
13           Mr. Steigelmann. Hearing nobody else to  
14           testify, I would like to thank each and  
15           everyone of you that sat through to the  
16           bitter end. I would like to thank also  
17           the stenographers and legislative staff.  
18           This public hearing has come to an end.

19           - - -

20           HEARING CONCLUDED

21           - - -

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1  
2 WE, ALAN L. LESKY and CLAUDIA LESKY, DO  
3 CERTIFY that the foregoing is a true and  
4 accurate transcript of the testimony as taken  
5 stenographically by and before us at the  
6 time, place and on the date hereinbefore  
7 set forth.

8 WE DO FURTHER CERTIFY that we are neither a  
9 relative nor employee nor attorney nor  
10 counsel of any of the parties to this hearing  
11 and that we are not financially interested  
12 in these hearings.

13 \_\_\_\_\_  
14   
15 Notary Public of the State of New Jersey

16 My Commission expires November 1, 1979

17 \_\_\_\_\_  
18   
19 Notary Public of the State of New Jersey

20 My Commission expires May 1, 1980

21 Dated: April 22, 1977

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